

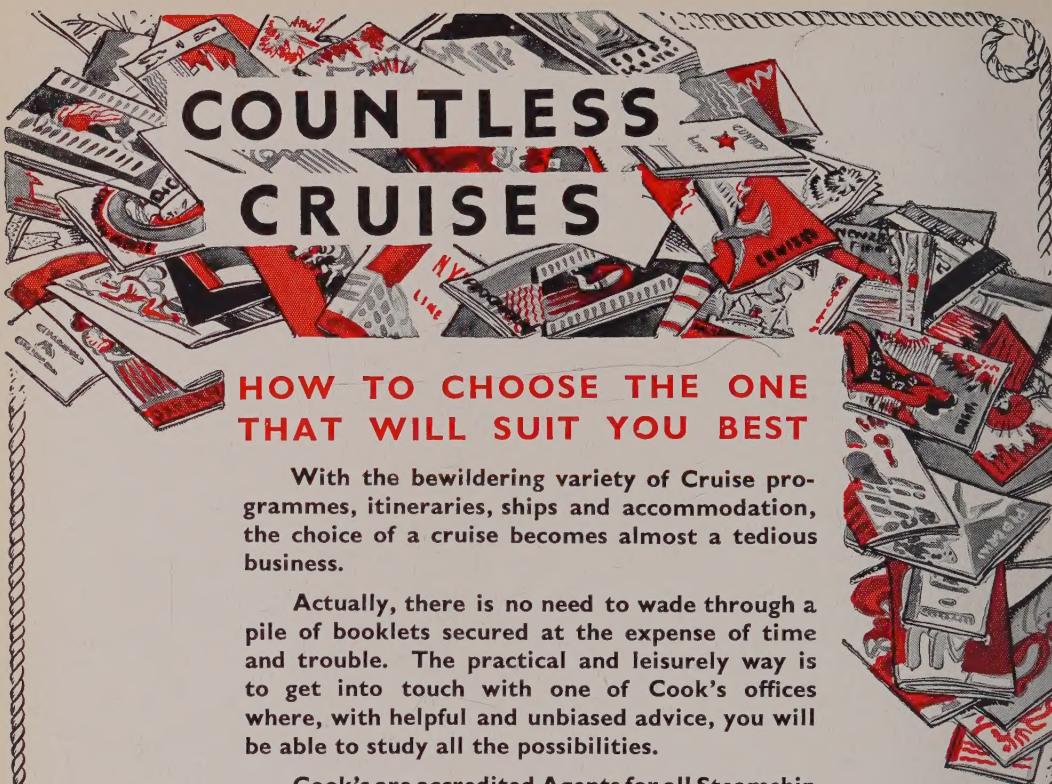
# THE GEOGRAPHICAL MAGAZINE

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# Erosion. II

## Man the Desert-Maker

by ELSPETH HUXLEY

*The earth's fertile soil is a capital asset which man, by his activity, can preserve, augment or destroy. In The Geographical Magazine for September 1937 Mrs Huxley showed how this asset has been wasted in the U.S.A., how nature's revenge—soil erosion—has followed man's improvidence, and what steps are being taken to prevent further damage. She now surveys erosion as a world problem; and from her survey emerges the lesson that if man is too greedy to put back into the land as much as he takes out of it, and to protect deforested areas by replanting or terracing, he will pay the price in the shape of a reduced standard of living, shortage of water and (as its counterpart) devastating floods*

"MAN strides the earth," it has been said, "and deserts follow in his footsteps." In the United States, as a previous article has shown, deserts are following very closely upon the strides of over-exacting man, sterilizing land that a generation ago was sound and fertile. This process is not a new one, nor is it by any means confined to America. Several of man's earliest civilizations are now submerged beneath the sand which he himself invited, and which then swallowed up his fields, his vineyards and his pastures. No one can suppose that the great cities revealed by archaeologists in Mesopotamia and North Africa were built upon the sand that now engulfs them. They were in fact the centres of fertile and productive land, of which little trace remains.

Greece, at the peak of its greatness, was a very different place from the bare, barren, rocky peninsula that we know today. Its hilltops were then clothed in forest, its hillsides covered with soil and grass, its valleys rich and fertile, and its peasants were producers of surplus grain, meat and wine with which to feed the citizens and slaves of Athens. The Greek soil provided a rich medium in which the plant of Greek culture could take root and flourish. Today, a large part of the Greek soil has disappeared and it seems very unlikely that what remains could support a major culture; for great cities can only be built from surplus wealth, and impoverished land will yield no surplus.

The decline of Greek civilization began, in all probability, with the deforestation of the hills; and it was hastened greatly by goats. These voracious animals ate down the young trees, the shrubs, the grass; they stripped the land of its protective coat of vegetation; and then rain washed the top-soil into the rivers. Nor was the loss of soil and the consequent decline of agriculture the whole story. Much of this soil was deposited along the lower courses of the rivers, where their velocity slackened as they reached the sea. Marshes and swamps were formed, and in them mosquitoes bred; the mosquitoes carried malarial infection; the health of the people was undermined; and enemies crowded in upon a debilitated race. Thus it is, perhaps, to goats rather than to internecine quarrels or to Persians that the downfall of Greek culture must be primarily attributed.

The 'advance of the desert' is still taking place today. The phrase is misleading, because it implies that the spread of deserts is an inevitable trend of Nature, like the gradual tilting of continents or the encroachment of the sea. This is not necessarily so. Certain deserts are undoubtedly growing; the Sahara, for example, has been estimated by French authorities to be creeping southwards at the rate of a kilometre a year, and in East Africa the Turkana desert, south of Lake Rudolph, is said to be spreading eastwards at the alarming rate of six or seven miles a year. But these deserts do not advance, in



d J. Shepstone

Rothamsted Experimental Station



*Because rain falls evenly on Northern Europe, and prolonged droughts or violent downpours are rare, the evils of soil erosion are almost unknown. But in several Mediterranean countries, such as Italy—*

*—and Palestine, only the practice of terracing has saved the soil of fertile hillsides, where vines and olives flourish, from being washed away. Palestine has suffered greatly from erosion, and most of the surviving cultivation (like that near Bethlehem here shown) is closely terraced*

the main, by the flowing of sand over the relatively fertile land which surrounds them: they advance because desert conditions are created by man on their borders. Both in Nigeria and in Kenya it is the natives' attempt to maintain too many cattle and sheep on sparse, dry, easily discouraged pastures that is killing the grasses and turning the veld into irreclaimably barren land. 'The population is actually increasing,' Professor Stebbing has written of those parts of Northern Nigeria bordering the Sahara, 'whilst the means of supporting it are obviously and visibly decreasing.'

This comment might have been made of many other sections of the continent—of parts of South Africa, of Nyasaland, of Tanganyika, Kenya and Uganda, of Somaliland, and of French West Africa. Next to the United States, the African continent is probably the severest active sufferer from soil erosion. It is more susceptible than continents which lie in temperate zones. Soil temperature is high, for one thing. The chemical breakdown of vegetable matter in the earth proceeds at a faster rate, and bacteria work more rapidly. Rainfall is for the most part poorly distributed; long dry periods, when the earth becomes baked and the vegetation weakened, are followed by violent downpours which sweep away the soil. And continual hot sunshine leads to a high rate of evaporation, so that moisture is sometimes sucked up by the sun before it has time to sink down into the subsoil.

The gradual destruction of soil fertility has doubtless been going on gradually for many centuries; but it has been greatly stimulated by the advent of peace, stability and disease-control in regions where raiding, migrations and epidemics were formerly the order of the day. Already populations are beginning to rise under the stimulus of these new conditions, as mushroom spawn sprouts with multitudinous insistence when the mould is just right and the shed is warm, wet and dark. More

land is coming under cultivation every year, partly because there are more people to be fed and partly because European governments are persuading natives to grow crops for export, a previously unheard-of procedure. More cattle, protected by vaccines from the diseases which used periodically to decimate them, are being crowded onto the same area of pasture. The result of all this well-meaning activity is that the original cover of forest, savannah and bush which protected the earth is being steadily whittled down. Cultivation is spreading up slopes where sheet erosion invisibly destroys soil fertility; and veld pastures, always inclined to be poor, are being completely destroyed by over-grazing, by trampling, and by continual burning in order to stimulate the growth of succulent young shoots.

The traditional method of agriculture in Africa is shifting cultivation. The African clears a patch of forest, cutting and burning the trees, and cultivates it for two or three years. When it shows signs of exhaustion he abandons it and starts again elsewhere. The cultivated patch reverts to bush—never, it may be noted, to the original rain-forest—and in due course recuperates. At some later stage, it is cleared again; but in the old days it would be rested for at least ten, and often for twenty or thirty, years. This shifting cultivation is a pernicious system, for it has destroyed forever immense areas of rain-forest. (It is thought that in Roman times, the Congo rain-forests stretched almost as far north as Khartoum; now there is over fifteen hundred miles of semi-desert between their northern border and the Sudanese capital.) But it does at least allow soil fertility to recover, and ensure that most of the land is protected by some sort of vegetation. Increased pressure on the land today is leading to the shortening of the period of rest, or bush-fallow, and land is often cleared for cultivation before it has had a chance to recuperate. In certain parts of the Kikuyú reserve in Kenya, for instance, one

acre in every three is cultivated today, whereas, thirty years ago, only one in every eight or ten was in use at any given time. Fertility suffers very quickly. The highlands of Nyasaland, for example, are now said to be capable of supporting only half the population that they carried a hundred years ago. This is hardly surprising, since parts of the Nyasaland highlands are losing topsoil at the rate of a quarter of an inch a year.

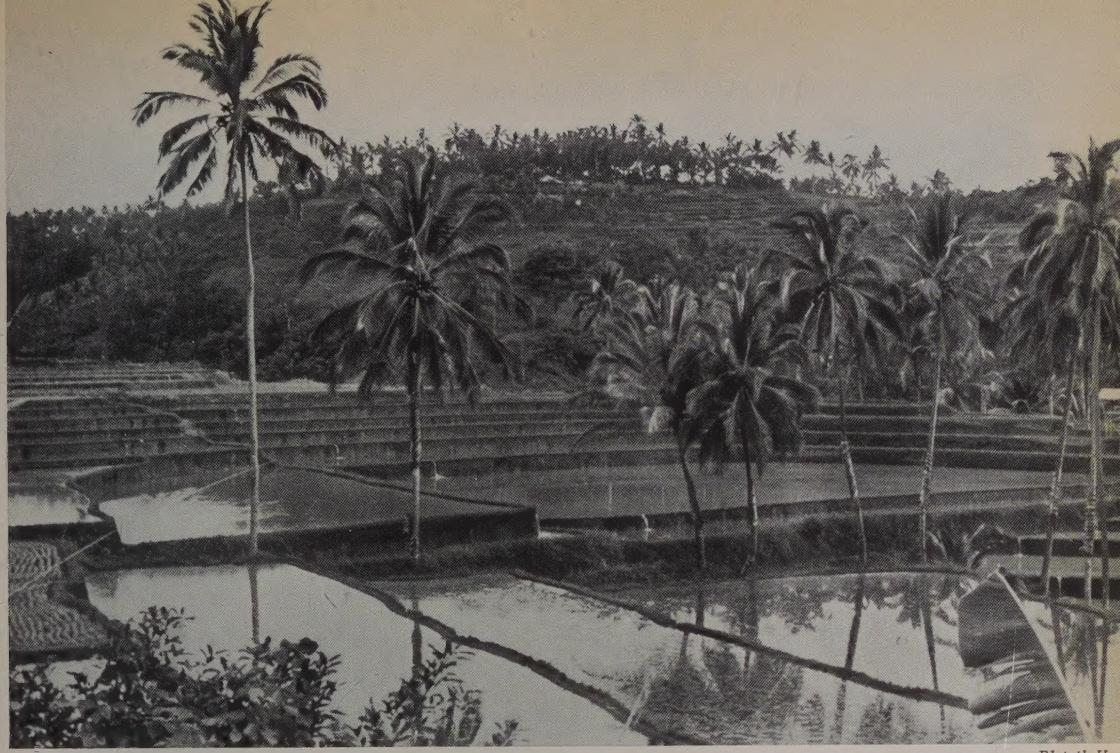
The realization is now beginning to emerge that tropical soils are not nearly so rich as was once believed; or, rather, that although they may be rich enough to start with, they have not got the same ability as European soils to retain their riches. Because European agriculture is mainly carried out on old forest soils which can be kept under continuous cultivation by using rotations and manure, it was assumed that agriculture in Africa could be conducted in the same way. But what can be done with impunity in temperate zones may not always work in the tropics, where humus supplies are quickly used up, and soil texture deteriorates with correspondingly greater speed. It now looks a little doubtful whether cultivation can be carried on indefinitely without intervals of grass or bush fallow. If this is so, optimistic estimates of population densities which can be attained in Africa may have to be revised.

Animal populations are increasing even more rapidly than human ones. In Kenya, for example, the three million native cattle which grazed the veld in 1920 had grown to six million in 1933. But six blades of grass were not growing where three grew before; on the contrary, owing to locusts and drought there were probably only two. The result can be seen by anyone who travels over the ex-pastures of the Wakamba, the Kamasia, the Suk and other tribes—bare brown subsoil, stones, goat-blighted thorn scrub, and rolling hills glowing with the vivid reds, purples and violets so typical of erosion, the beautiful colours of decadent earth. (More than

one-third of the Wakamba reserve is eroded down to the subsoil.) Overstocking leads to the concentration of herds and flocks onto ever-diminishing areas of good grazing, which in turn is ruined, and so to one of those vicious circles in which the whole subject of soil erosion abounds. At the end lies the ultimate fate of which South Africa was warned by the Drought Commission of 1923—the formation of 'the great South African desert, uninhabitable by man'.

There is, of course, a remedy: the reduction of stock to a number which the land can safely support, and the control of grazing so that various sections of the pasture are rested at intervals sufficient to enable the grasses to reseed themselves. This sounds a simple, sensible solution, as indeed it is; but the simple and the sensible are seldom easy to achieve. A reduction in the total numbers of their animals is not acceptable to tribesmen who count their wealth and pay bride-price for their wives in cattle; nor does the regimenting of their herds according to the apparently arbitrary views of a white administrator commend itself to the native pastoralist, perhaps the most die-hard surviving champion of the doctrine of *laissez-faire*. Overstocking, then, becomes an administrative rather than a scientific problem, and one which, by and large, has hitherto baffled the governments concerned.

Here and there a few nibbles are being made at the cheese. In Kenya, a meat factory which will buy surplus native cattle has just been built, and both in Kenya and in Basutoland some of the most eroded areas are being 'reconditioned'. In British Somaliland certain areas are being closed to stock at critical periods in the grass's growth. Before the days of British rule, every tribe had its own dry-season grazing, the *jilal*, which it guarded at the point of the spear. When the leaders decided to migrate, every individual had to move with the tribe. After the *Pax Britannica* put a stop to inter-tribal battles, individuals found that they



Elsbeth Huxley

Terracing was probably first evolved as a stage in the cultivation of rice, which must be flooded during its early growth. Nowhere has it been more highly developed than in those hilly, volcanic East Indian islands whose inhabitants live largely on rice, such as Bali, where these pictures were taken

Elsbeth Huxley





H. M. Glover

*In spite of protective 'bunds' which took three generations to make, and used up most of the Rajput soldiers' savings, these fields in northern India are still being eaten away by advancing erosion*

could safely stay behind with their camels or cattle when the tribe moved; and the grasses were no longer rested and given a chance to reseed. This, combined with a great increase in numbers of people and stock, has led to a situation where 'all forms of erosion are taking place on the widest scale'.

It is lack of water, more than any other single factor, that sets a limit to development in Africa. Perhaps the most sinister aspect of soil erosion, therefore, is its effect on water supplies. In South Africa a conviction formerly existed, and in some quarters still exists, that the rainfall was diminishing. The 1923 Drought Commission examined all the evidence and concluded that this was not so. Total rainfall, they said, had not changed; but owing to maltreatment of the land, less of the rain that fell was being absorbed by the soil and more was being wasted as run-off,

so that the ability of soil and vegetation to withstand droughts had been weakened.

Erosion causes springs to dwindle, wells to fall, and rivers to degenerate into trickles which may fail altogether in dry seasons, and become roaring destructive floods in the rains. The Government of the Gold Coast recently opened a big reservoir at Kumasi, on the site of some old wells that had dried up. To replace dirty and inefficient wells with a fine new concrete reservoir is, of course, an excellent thing; but amid the acclamations of engineers and doctors, the still small voice of forestry may perhaps be heard to ask: Why did the old wells dry up? Can this, perhaps, have some connection with the destruction of bush and forest to make way for more cultivation? And is there not a danger that the fine new reservoir at Kumasi may, in fifty years, dry up too? Then again, Dr Robert Laws, a missionary who has

lived for many years in Nyasaland, has named twenty rivers which flowed all the year round when he first knew them, but which are now seasonal. In the Orange Free State, sixty years ago, there were ready pools, long grass, and many small slow-moving streamlets where today there are dry sandy river-beds and bare, trampled veld. So serious is the shortage of watering places for stock in the Union, that the Government recently undertook to pay a subsidy of one-third of the cost of small dams built by farmers, and in three years dams and anti-erosion works to the value of over £2,000,000 have been installed on farms.

It is recorded that in 1497 the Emperor of Songhai (now a part of French West Africa) made a pilgrimage to Mecca with a cavalcade of 800 people. He and his retinue rode east on horses and donkeys, following a course running roughly from

Gao through Agades and Bilma to the Sudan. They returned intact by the same route. Now horses and donkeys must be watered every day; they cannot traverse a desert. It is therefore safe to assume that permanent water could be found at frequent intervals all the way across the French Niger colony and the western Sudan, now waterless desert. What has happened to the wells and streams by which this caravan camped? Have they withered before some gradual climatic change, or has that change been brought about mainly by man's own activities? If the second answer is the true one it holds a challenge to the wisdom and skill of the European powers who govern Africa, and whose task must then be to save from their own activities those people who, in Professor Stebbing's words, 'are living on the edge, not of a volcano, but of a desert whose power is incalculable' and whose



*All that was left when erosion had finished with a road in the Indian province of Sind—a sand-filled gulley and an abandoned culvert—with the new road alongside*

*Rothamsted Experimental Station*



Count Castell

*The colour of China's Yellow River is due to soil washed down from the 'loess' formation in the north-west, where erosion is so advanced that these brown hills are normally bare of all vegetation, and uninhabited*

silent and almost invisible approach must be difficult to estimate'.

It was perhaps unfortunate for Africa that the Emperor of Songhai and his 800 retainers did not bring back from their visit to Mecca a knowledge of the greatest positive anti-erosion measure (as distinct from negative measures such as forest preservation) yet evolved: the art of terracing. Many of the pilgrims who came and went in Mecca's cosmopolitan streets must have seen examples of it in China, in India, in Java, or in Ceylon, for terracing is an Eastern invention. Yet, in spite of the frequent contacts made with Arabia by West African Mohammedans, the principle was never adopted. The reason may well have been because no one in Africa ate rice. Terracing was evolved not primarily as a device to prevent erosion, but as the only practical method of growing

rice—which has to be flooded in its early stages—on hilly land. The terraces were designed to hold irrigation water, not to check soil-wash. It was in a sense an accident that they also prevented erosion, and so preserved for cultivation soil that would otherwise have been quickly washed away down steep hillsides.

The Japanese were among the first to adopt a conscious, national policy of soil conservation. After a period of deforestation in the 17th and 18th centuries, the government saw that erosion was causing serious floods, and engaged a Dutch engineer called Johann Dorekh, who, from 1781 onwards, built dams to check the flood waters and reclothed the steeper slopes with vegetation. His work still survives as the basis of the Japanese conservation system. In places, up to ten times the value of the land has been spent on pro-



Count Castell

*Elsewhere on the loess, cultivation continues, but branching gulleys continually gnaw into the crumbling soil and cut ravines, 150 to 300 feet deep, between villages. An air photograph taken on the borders of Honan and Shensi provinces*

tecting it from erosion. Reforestation has proceeded to a point where 67 per cent of the crowded islands' small area is under trees. Compared with this figure, the 'forest reservoirs' of most African territories are indeed pitiful: 1·18 per cent of total land area in Tanganyika, for example, and 2·65 per cent in Kenya. In Africa as a whole, only about 8 per cent of the total land area is under forest.

Java has saved its rich volcanic soil by an elaborate system of narrow terraces. Cultivated land has been moulded by devoted labour into steps which follow the contour of the hills. When irrigation water is trapped on their level planes, the sun's rays are flashed back as from a thousand shining mirrors, and the shadows of palm trees and stooping peasants are everywhere reflected in their bright surfaces. In Ceylon, terraces made before Tamil

invaders destroyed the Sinhalese civilization still survive. In the Mediterranean countries, which at some stage learnt the technique, the terracing of steep hillsides, on which vines and olives now flourish, saved the land from irretrievable ruin. Even so, France has not escaped erosion trouble. In Savoy, for example, some 100,000 acres of once fertile land have been destroyed by the deposition of coarse silt washed down by the river Ardèche when in flood. Records show that during the whole of the 18th century there were eight floods in the Savoy region. After the Revolution, forests previously preserved for sport were chopped down vigorously for profit, with the result that in the 19th century the number of floods rose to thirty-eight.

In China are to be found the world's outstanding examples both of erosion control and of erosion damage. In the broad,



Elsbeth Huxley

*The native herds of tropical Africa have increased enormously under white rule, and the consequent overgrazing of natural grasslands has brought severe erosion in its train. Two scenes in Kenya, where the grass has been eaten to death by cattle and by goats—even more destructive in excess*

*Colin Maher*



*Round native homesteads  
the sharp hoofs of cattle cut  
tracks in overstocked pas-  
tures, soon converted into  
desert. (Right) A village  
in British Somaliland*

*Cattle tracks grow into  
dongas, and parts of the  
Transvaal Bushveld have  
acquired in recent times  
the appearance of a lunar  
landscape, as a result of  
overcrowding by native  
stock (Below)*



Dept. of Agriculture and Forestry, Pretoria

Royal Air Force



FOREST DESTRUCTION IN AFRICA  
PREPARES THE WAY FOR EROSION



Elspeth Huxley

This hillside in Kenya was once thickly forested; now it is a native shamba. Serious sheet erosion and loss of fertility is inevitable on any such cultivated, unterraced slope



E. H. Ward

Africans practise shifting cultivation, which destroys the land's protective cover of forest, and leaves it exposed to sun, wind and rain. On the left is a section of the surviving rain-forest on Mt. Kenya; above is a view of a similar slope cleared for cultivation by natives



Elspeth Huxley

flat, alluvial valleys the industrious Chinese have kept the same land under cultivation for 4000 years without impairing its fertility. They have done this by returning to the soil, in the form of a humus-rich compost, every scrap of organic matter saved, with unmatched economy, from the peasants' homes and the villages. Man lives on the land as part of it, generation after generation, taking nothing away, returning his wastes and (in due course) his bones to the earth from which they came. But China can provide, in contrast, some of the worst instances of soil deterioration. The very name of the Yellow River is a record of erosion. It is yellow with loess soil that for centuries has been washed in incalculable quantities to the sea, so that the river seems to be flowing with a sort of brown porridge rather than with water. On the brown soils of Shantung, Kiangsu and western Hopei, sheet erosion has pared away the topsoil to expose rock or a sterile pan of clay. In parts of Szechuan, farmers have collected the vestiges of their soil and built it into terraces which stand on otherwise bare sandstone rock; and huge areas of south and central China have been damaged by gullies.

On the other hand, the most remarkable attempt to grapple with sheet erosion in the world, probably, is to be found on the so-called loess soils of north-west China—light, friable soils, deposited in bygone ages by winds blowing from Central Asia, sometimes to a depth of fifty feet or more. The land is sloping, and begins to wash downhill as soon as it is cultivated. Farmers of past centuries have checked the wash with little walls of sod laid along the contour. As time went on they have gradually built up the walls to keep pace with the wash, until today these hillsides are stratified with such a vast and complex system of terraces that foreigners have been tempted to attribute them to a natural geological formation. Even this astonishing achievement of accumulated toil has not proved sufficient to check erosion. Soil is being

steadily lost by wash, by huge gullies which grow out of drainage courses provided to lead off the surplus water, and by 'sink-holes' made by the accumulation of water below the surface until a point is reached where the crust of soil above caves in, and a hole perhaps ten or twenty yards deep is formed. Very gradually, therefore, the loess soils (which occupy a huge area of China) are being worn away. Further west, winds blowing across bare ploughed-up grasslands of Inner Mongolia have created moving sand-dunes, and a newly formed desert is beginning to spread south-east.

The open plains of Siberia and of the Ukraine are in some ways similar to those of the American Middle West, and, like them, appear to be susceptible to wind and sheet erosion. It may yet be that Russia's much publicized phase of tractor-worship will have undesirable after-effects, just as America's phase of wheat-worship led to dust storms. Russia appears to be following the same course as that which caused the trouble in America—greatly increasing acreage under the plough in an area of low rainfall and high winds; and it seems unlikely that the collectivized farm, however sound its ideology, will escape Nature's impartial retribution. It appears that a somewhat blind worship of the plough is a stage that every country of expanding economy goes through, and that most of them regret. In Africa ploughs were regarded until very recently—and in some areas still are—as an index of progress. Officials listed an increase in the numbers of ploughs in their districts with pride, as a sign of the native advance. The greater the increase, the more prosperous the people were thought to be. Now it is often felt that ploughs are implements of danger, and not solely of goodness and light, and their purchase is discouraged unless natives at the same time adopt soil-protective measures such as terracing, strip-cropping or mixed farming.

We have seen that four continents have been attacked in places by this leprosy of



Commonwealth Forestry Bureau

The razing of forests in parts of Australia has led to dwindling rivers, the silting of reservoirs, and other serious troubles. Sheet and the beginnings of gully erosion following forest destruction are shown above; and a more advanced stage of gulleying, due to the same cause, below

Commonwealth Forestry Bureau



*Sheep thrive on healthy saltbush in the arid pastoral regions of South Australia—but only in strictly limited numbers*



*F. N. Ratcliffe*

*Overstocking, combined with drought, quickly kills the saltbush and leaves the land a prey to wind erosion*



*F. N. Ratcliffe*

*The only hope of regeneration lies in ploughing furrows in which drifting sand and seeds, otherwise too mobile to germinate, may collect, and gradually recreate a cover*



the land, soil erosion; and the fifth is also a victim. Australia shares with Africa the handicaps of limited water supplies and the possession of great stretches of pastoral land where rainfall is low and the desert lies in wait. As in Africa, desert is encroaching at the expense of grazing-land, and for the same reason: overstocking. In South Australia the demands of sheep on the naturally delicate grazing have in places killed the vegetation. The process has been blamed, to some extent, on land tenure policy. The grazing was split into units too small to be economic, with the result that the farmers, in an effort to make enough money to pay their interest charges, had to crowd sheep onto their holdings far in excess of the numbers that the land could carry.

Another policy proved unwise after the event was that summed up in a cry common in Victoria in the '80's: 'settle men where the big trees grow'. Men were settled, and the trees destroyed. Now; much of this land has been abandoned and has reverted to the Crown, and the authorities are trying to reforest it. In the Mallee area, again, settlers destroyed grass and Cypress pine to make way for wheat; now, wind erosion is so severe that farmers are even losing their seed after sowing. On the watershed of the Murray river, in whose catchment area three-quarters of the Dominion's population live, deforesta-

tion and pasture-burning has caused severe soil-loss, gullying, and the silting-up of reservoirs built for irrigation. The capacity of the Laanecoorie reservoir, for example, has been reduced by silt from 14,000 acre-feet to 6650 acre-feet since its construction in 1892.

And so the catalogue of damage by erosion goes on; few countries are free from the disease. The story may seem a gloomy one, but it is not without hope. Erosion on arable land can be controlled, as those who practise terracing, strip-cropping and contour-ridging have proved; and on pastoral land the situation can be met by the strict control of grazing. But control of soil destruction involves also control of human nature: the curbing of greed, and of the blind desire to squeeze the soil dry in a single lifetime. It means that man must cease to be a parasite who sucks from the land all the wealth that he can extract, and must enter into a symbiotic relationship, giving as well as receiving. Upon whether the bulk of mankind will be able to make this adjustment, as sections of it have already done, depends the future of soil fertility. If the effort proves too much then it seems certain that deserts will continue their slow relentless advance, and that increasing populations will have to scrape an ever poorer subsistence on a gradually decreasing allowance of fertile and well-watered soil.

# Black-Forest Carnival

by DOUGLAS CHANDLER

*There is something peculiar about February. The Romans knew it as the month of purification; the ancient Teutons as the time to get rid of accumulated grudges and other devilry; while the Catholic Church gave it a sort of special licence for Carnival before the Lenten fast. To whatever mixture of these and other traditional elements the South German Fasching owes its origin, the result is one of the strangest popular festivals to be seen in Europe*

In the pre-Lenten season, for a period of about three weeks, Carnival is celebrated throughout the Black Forest. It is the time known in Germany as *Fasching*, and, by a paradox, the Schwarzwald revels are more hilarious and characterized by more bizarre customs than those in any other locality in the country. The paradox lies in the fact that the Black Forest inhabitants are known during the rest of the year as extraordinarily earnest, humourless, pious folk.

The character of these sober Germans has been moulded by the vast expanses of frowning black-pine forest and by the hardships of their life. *Fasching* offers an opportunity to escape briefly from the serious rôle of everyday, and they throw themselves with astonishing lack of self-consciousness into a protracted spree of madcap frolic.

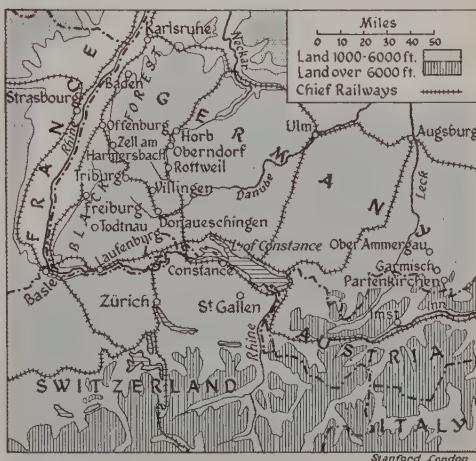
As with most folk-customs, the true origins of the Black-Forest Carnival are lost in the mists of unrecorded time. But it is generally conceded that the *Narren-Treffen* (literally, Fools' Meeting) as practised today is the outgrowth of early Germanic rites.

To the pre-Christian Teutons their forests and fields—the very air they breathed—were peopled with daemons. And because the daemonic spirits played so terrifyingly upon the fears of these simple folk, they imagined that fear could in turn be employed for devil-exorcism. It was thus that they evolved the elaborate mechanism of fear-inspiring masks, fantastic raiment and noise-making apparatus which makes a Schwarzwald Fools' Meeting such a colourful orgy of the grotesque.

Ask the average villager why at this season of every year he and his neighbours don these absurd costumes, cover their faces with uncomfortable carved wooden masks, carry a weight of some sixty pounds in bells, and, so bedecked and beladen, caper through the streets of the town. The only answer you will receive is, "Because we always have done it."

I questioned one massively built Swabian blacksmith whose mask was carved with enormous nose, contorted mouth and sorrowful wooden beads of tears coursing down the cheeks. "Ja," said he, "is it not like the barnyard beasts and the furry things of the wood? They all shed their hair at one season, and some that have horns get rid of those as well. This *Fasching* is our moulting season. . . . And at this time we can say what we want about our neighbours, thus sloughing off the year's accumulated grudges."

In every *Fasching*-season there is one





Douglas Chandler

Every year, at the climax of the pre-Lenten carnival, a procession of strangely clad performers from all over the Black Forest assembles in one of the towns. Each village has its special characters.  
(Below) The Wuescht (wild men) of Villingen with stuffed clothes, back-boards and brooms

Retzlaff



*Many of these characters (generically called Narros or 'fools') originated in pre-Christian rites. For example, the custom of stoning the Villinger Wuescht through the streets is thought to symbolize the driving out of winter*

*Las Chandler*



*Hans Retzlaff*

*Sometimes the very place of their origin is no more. At Rottweil appears the Brieler Rössle, a hobby-horse (above) named after the vanished village of Briel. His arrival in Rottweil, leaping to the crack of whips, once heralded the beginning of carnival. (Left) Another hobby-horse, shaped like a cock*

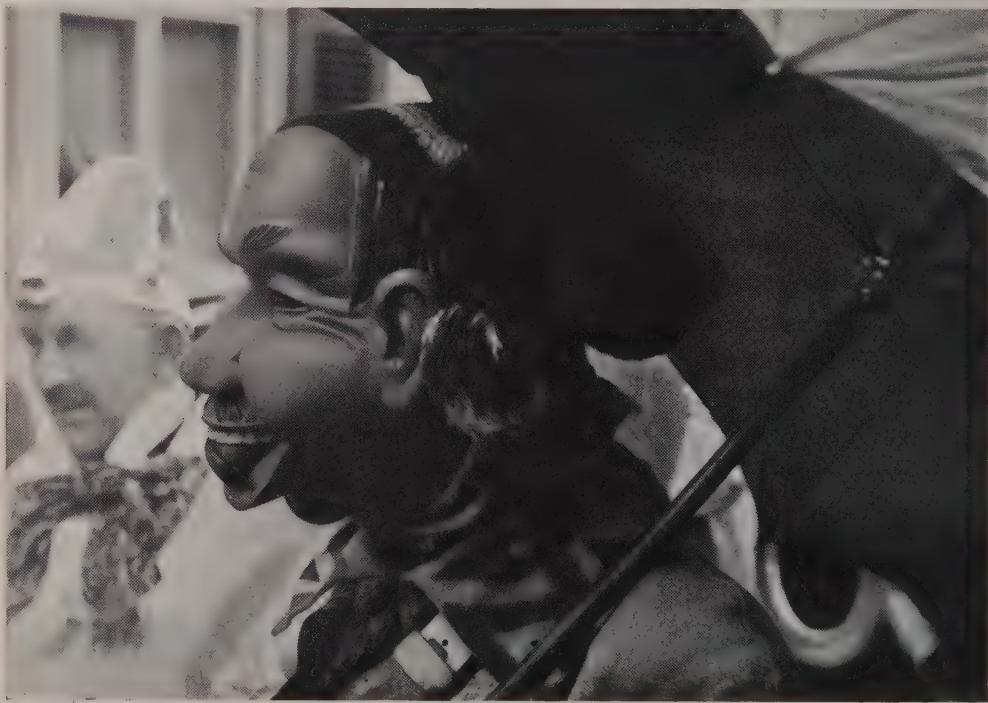
week-end appointed for a mass-gathering of revellers from villages and cities scattered over the entire Schwarzwald. On other Saturdays and Sundays during the period each town has its own separate celebration.

In the spring of 1936 the big meeting took place at Oberndorf, a small manufacturing town in almost the exact centre of the Black Forest area, and famed as being the native place of Mauser guns. Dwellers from twenty-seven different communities assembled there for an entire week-end of carnival. All Saturday night they danced and revelled in the town meeting-hall. At eight o'clock on Sunday morning they held, according to custom, a *Probe-Sprung* or practice springing, as preparation for the big procession which always takes place at two in the afternoon.

The rest of the forenoon is spent in gossiping, drinking healths in the various inns, and at a luncheon to the accompaniment of much singing and drinking of beer and 'schnapps'. By two o'clock everyone is in gala mood.

As the town clock strikes two they hurl themselves with a furious din of rattling bells, with *Katzen-Musik*, laughter and shouting through the main street of the village. The *Narros* cavort, gracefully springing in a peculiar, traditional step which causes their harness of bronze bells to ring in rhythmic fashion. On long sticks they carry supplies of *bretzels* which they fling right and left to the crowding spectators.

Witches with heavy brooms raise unsuspecting bystanders high in the air, a-straddle and shrieking shrill protest.



Douglas Chandler

*The masks, weighing over two pounds, are carved in schools conducted by Dominican friars. Some of them caricature human qualities. Thus imbecile good humour marks the expression of Pflaumen-schlucker (Plum-Swallower) —*



—while ferocious cruelty is portrayed in the mask of Schuddig, who chastises both 'fools' and spectators

Hans Retzlaff



Hans Retzlaff

Schandle, the scandal-monger, reads out of 'her' book titbits of malicious gossip concerning local people



Douglas Chandler

Douglas Chandler

Federhannes (*Feather-John*), with fierce tusks and a long pole, spreads terror among the crowd by his sudden runs and high jumps

His companion, the G'schell, wears a mass of heavy bells and, like the Schandle, carries a doomsday-book. From this record of human folly derives, perhaps, his pained and contemptuous leer



Man-horses gallop to the cracking of long whips wielded by hideous masked drivers.

The principal characters to be distinguished among the Narros are the *G'schell* (Bell-Fool), *Federhannes* (Feather-John), *Hänsel* (Tease), *Schuddig* and *Schandle*.

The Schuddig—most ferociously masked of all—is the licensed chastiser. He is armed with a stick to which is attached a stout, air-filled bladder, and with this harmless weapon he belabours fools and spectators alike. The Schandle carries over his head a figured white-and-particoloured umbrella; under his left arm a large book. This book is the *pièce de résistance* of the entire sport: in it are written down the petty rascalities, the moral lapses, the chicaneries of all the erring members of the community. And when the parade is ended these titbits of evil gossip are read aloud by the Schandle for the ears of all and sundry! If the butcher has sold doubtful cuts of meat or charged improper prices he is sure to hear of it at the free-for-all Fasching impeachment. And, as there are many Schandles in every group of revellers, each with his schedule of knaveries, it is not to be wondered at that an aftermath of lawsuits and processes follows each year's Fasching celebration.

The masks are carved in schools of wood-cutting conducted by the Dominican friars. These masks weigh on the average two pounds or more apiece. Many of those in current use were carved as much as two hundred years ago and have been handed down as treasured heirlooms from father to son for generations. Each year they are freshly painted so that all evidence of their antiquity is concealed. For those who do not possess such inherited masks, and have not the wherewithal to buy new ones (at a cost of about £4 apiece), there are masks

to be rented from the *Narren-Zunft* or Carnival Association for a very modest price.

Most of the costumes are made of hand-woven white linen and are painted by hand in brilliant colours with figures of animals, priests, Saracen pirates, mediaeval courtiers and other fascinating designs.

An interesting analogy is noted by one of the German commentators on the history of these customs. In the old English Morris-dances, hobby-horse figures identical with those of the Schwarzwald *Rössle* or 'Horse-fool' appear; also the fox-tails worn by the *G'schell* are familiar in the Morris-dance.

Another German commentator has drawn attention to the fact that the Garmisch-Partenkirchen district of southern Bavaria, where these Shrovetide festivities have also been celebrated with great vigour from early times, lies on what was once the great trade-route from Italy to Augsburg, capital of the Roman province of Rhaetia, founded by Augustus in 13 B.C. (Imst in the Tyrol, where similar revels are held, lies on the same route.) Traces of the Lupercalia, the yearly festival of purification and fertility held by the Romans on February 15th (cf. Latin *februare*, to purify) are found by this observer in the fact that, as in the Roman festival, only men may run masked through the streets; in the freshly made birch-brooms offered by the participants to women bystanders; and in the decorated ox-tails carried by the *Schellenrührer* with their jingling bells.

The Black Forest also lay within the boundary of the Roman Empire, and it may well be that elements of Roman origin have there, too, become mingled with the early Germanic rites of devil-exorcism and have contributed to the weird medley of masked characters that throng the villages at Fasching.



Certain *Narros* (fools or buffoons) in the South German Shrovetide carnival carry supplies of *bretzel* ca

Photographs by Hans R.



Among the *Narros* of Laufenburg in the Black Forest, the fishermen's guild is distinguished by a net—



—and includes among its traditional disguises the only feminine mask at the Laufenburg Fools' Meeting



In the Bavarian Alps great value attaches to the ancient Fasching masks, carved out of wood—



—which the owners exchange at carnival time so as to conceal the wearer's identity



A *Narro* from the Black Forest, who belabours bystanders with a bladder



*Federhannes* (Feather-John) is known by his feathered cloak and boar's tusks



A fascinating fancy-dress: the playing-card *Narro* of Zell am Harmersbach in the Black Forest

# Descendants of Jenghis Khan

## I. Mongolia and her Overlords

by Sir ERIC TEICHMAN, K.C.M.G., C.I.E.

*How the Mongols, in the 13th century, conquered an empire stretching from the Pacific to the Carpathians—a truly amazing tale—was recounted in our last number by Mr Douglas Carruthers. Today, though but a scattered remnant, the Mongols once more occupy an important place in the world, since Mongolia forms the line of contact between two great countries, China and the U.S.S.R., along which the armies of a third, Japan, are advancing. Sir Eric Teichman, author of Journey to Turkistan, who was until recently Chinese Secretary at H.M. Legation in Peking, surveys briefly the recent history and present situation of Mongolia, with special reference to the U.S.S.R. and Japan*

THE Mongols of the old Chinese Empire, numbering perhaps four millions in all, are distributed over an enormous area in Asia. A traveller may cover many thousand miles from Manchuria to the confines of Tibet, Siberia and Russian Central Asia and meet throughout his journey families of the Mongol race leading the same pastoral life with their encampments of the same round tents of felt. But through the vicissitudes of political events the descendants of the Mongol hordes who once overran and conquered half the world are divided into far-flung groups and have lost all national cohesion, living under the protection of Russia, China and Japan.

The Khalkha Mongols of Outer (*i.e.* North) Mongolia have established a form of socialist republic under the guidance and protection of the Russian Soviet; and to the north-west, on the borders of Siberia, the debatable frontier region formerly labelled on the atlas *Uriangkai* has become the smaller soviet republic *Tannu-tuva*.

The Mongols of Inner (*i.e.* South) Mongolia remained until the recent Japanese invasion under loose Chinese control, with their pasture lands carved into the three Chinese provinces of Chahar, Suiyuan and Ningsia. The Chinese Government, after first seeking to impose on these Inner Mongols the standard administration of a Chinese province, had of recent years been wooing them with offers of autonomy; but they have now passed, whether tem-

porarily or otherwise, into the Japanese sphere of influence. Meanwhile the Eastern Mongols, inhabiting the grasslands of Manchuria and Jehol, have since 1932 been incorporated in the Japanese protected State of Manchukuo.

In the west the Torgut Mongols of Zungaria and Eastern Turkistan remain nominally under Chinese Government control. But the Chinese authorities of Sinkiang, to whose jurisdiction they belong, separated by vast distances from China, have fallen increasingly under Russian influence. Also still under Chinese jurisdiction are the Mongols of the Kansu and Tibetan borderlands; including the tribes of Alashan and Etsin Gol, the latter a branch of the Western Torgut stock; and those of the Kokonor and Tsaidam region, formerly under the supervision of the Manchu Amban of the Kokonor, and now administered by the Chinese Moslem rulers of Sining.

### THE BACKBONE OF THE RACE

Of all these Mongol tribes only the Khalkha Mongols of Outer Mongolia appear to enjoy a measure of national independence and opportunity of national development. How real this opportunity may be can only be judged by those who have been able to penetrate the closed frontiers of their land.

The Khalkha Mongols are the backbone of the Mongol race. In the 19th century

they lived, like the other Mongol tribes, under the rule of their hereditary princes and the suzerainty of the Manchu Emperor, whose might and majesty were represented, as in Tibet, by Manchu residents, the Ambans, stationed at Urga, Kobdo and Uliasutai. But as the Manchu Chinese Empire fell more and more into decay, the Government of Tsarist Russia, pressing hard on China's northern frontiers, drew the Outer Mongols more and more under their wing. When, in 1912, China became a republic, the Khalkha Mongols, declaring that they owed allegiance to the Manchu Throne but none to the new republic, sought to break away from China. The Russians, taking advantage of the situation, were able to negotiate with Urga and Peking a tripartite settlement under which Outer Mongolia became an autonomous State under Chinese suzerainty but Russian influence; arrangements which were but a camouflage for the establishment of a Russian protectorate over North Mongolia.

The Chinese republic has not made a success of its dealings with the Mongols and Tibetans, who were bound to the Manchu Dynasty by links of tradition, sentiment and faith. The early Manchu Emperors were wise enough to propitiate the Lama Church; the Mongol chiefs and princes and Tibetan dignitaries were proud of the official rank and titles bestowed on them by the Peking Court; and there was little interference by the Chinese residents in the internal affairs of Mongolia and Tibet, which were administered as self-governing dominions under the benevolent protection of the Chinese State.

But these smooth relations between China and her great dependencies were already impaired before, in 1912, the revolution put an end to Manchu rule. The Chinese Government, alarmed at what they regarded as the encroaching tendencies of Russia and Great Britain, attempted in the years before the revolution to consolidate their hold on both Mongolia and

Tibet, seeking to curtail the self-governing prerogatives of the Dalai Lama and the princes and pontiff of Mongolia. The Mongols and Tibetans were thus already halfestranged before the birth of the republic and the advent of new and revolutionary policies in China strained to the breaking point their traditional connection with the Peking Government.

#### ENTER THE BOLSHEVIKS

The Government of the new republic, obsessed by the fear, inherited from their predecessors, that Tibet and Mongolia were slipping from their grasp, continued the ill-judged policy of working to bring the dependencies under more direct control, thus precipitating the very danger which they were seeking to avert. The influx of Chinese colonists breaking up for agriculture the pastures of the Inner Mongols, and in Outer Mongolia the economic and financial domination of the Chinese business houses, increased the hostility of the Mongols towards their former Chinese overlords. Outer Mongolia and Tibet shook themselves free from China.

In 1918, after the Bolshevik revolution, the Russian position in Mongolia collapsed. In 1919 the Peking Government, which was at that time under Japanese influence, sent a military expedition to Urga and reoccupied with Chinese troops the principal centres of Mongolia. (A similar, but less successful, attempt was at the same time made to reoccupy Tibet.) But the Chinese effort was short-lived. In 1920 an influx from Siberia of Russian Whites, pursued by bands of avenging Reds, threw all Mongolia into a state of turmoil. The Chinese troops, attacked by the White Russian marauders and their Mongol supporters, were cut to pieces or fled in disorder across the desert back to China. The Whites were in turn ejected by the Bolsheviks, who were by then masters of Siberia. The future of Outer Mongolia was once more in the melting-pot. The year or two of Chinese military rule had more than ever

alienated Mongol sympathies from China; the Mongols turned naturally for assistance to the Bolsheviks, who had appeared upon the scene as liberators; the *Bogdo Hutuktu* of Urga, Pope Ruler of the Mongols, ranking in the lama hierarchy with the Dalai and Panshen Lamas of Tibet, died in 1924; and Outer Mongolia was converted into a soviet republic and became again a protectorate of Russia.

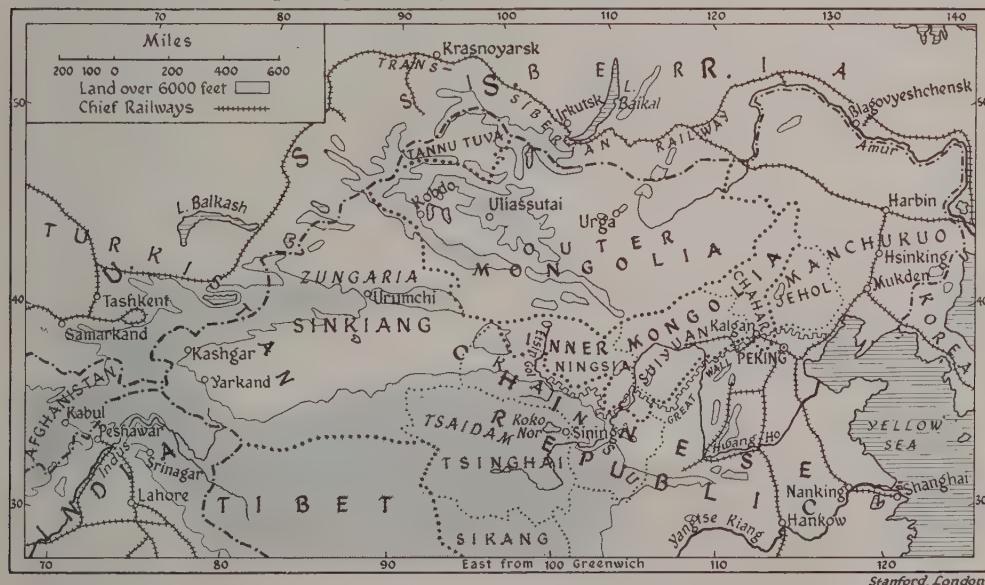
#### A FORBIDDEN LAND

From the point of view of China the last state of Mongolia was worse, far worse, than the first. The new régime set about eliminating all Chinese trading and official influences, and the frontiers with Inner Mongolia and Manchuria (still at that time under Chinese rule) were strictly closed. For some years now all Chinese have been rigidly excluded, the stream of Chinese trade has been reduced to a trickle, and not a vestige of Chinese influence survives. Yet the U.S.S.R. have formally recognized, for diplomatic purposes, China's suzerainty over Mongolia. The Soviet authorities, like their Tsarist predecessors, succeed somehow or other in squaring this diplo-

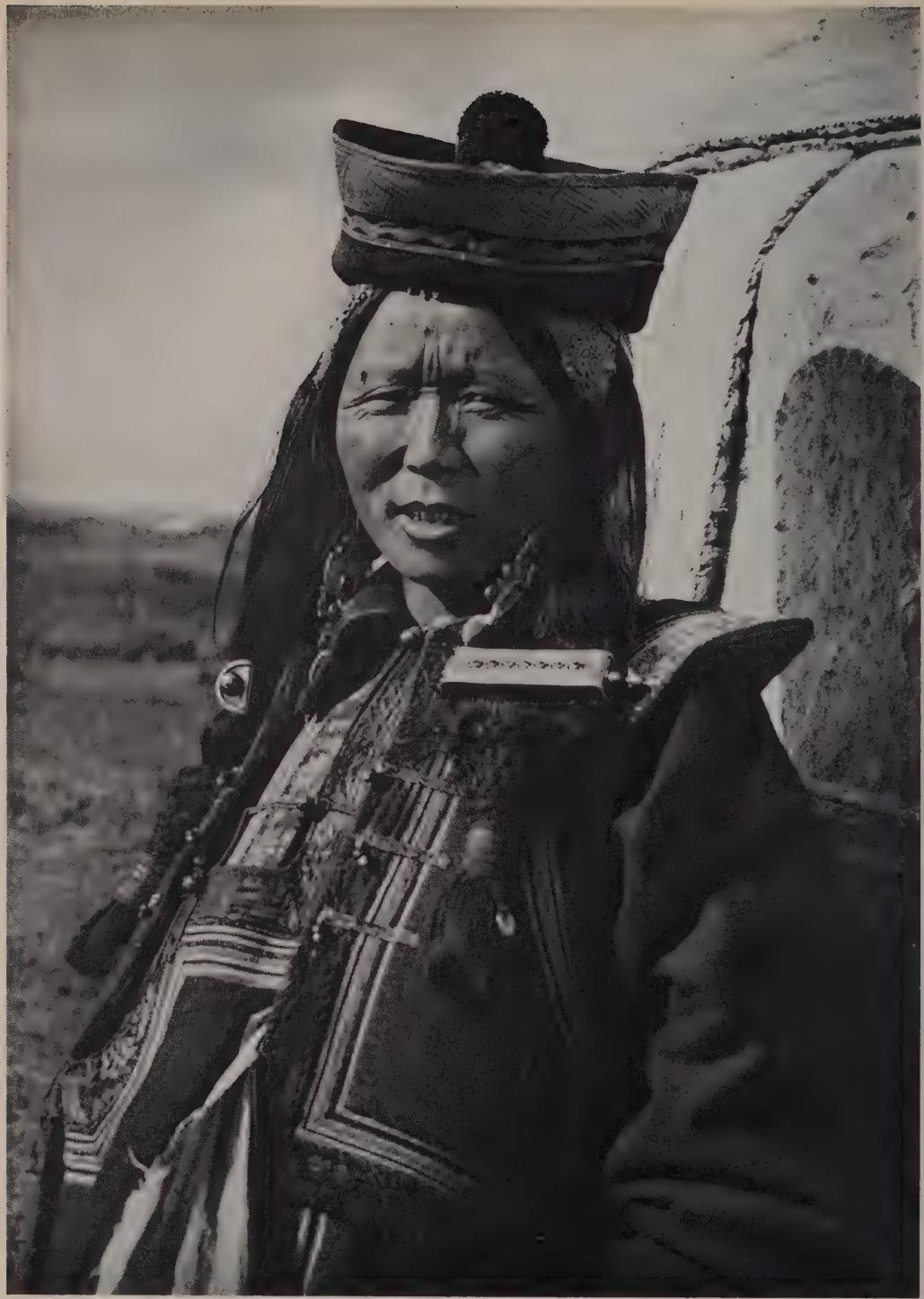
matic circle and in explaining, at least to their satisfaction, the apparent contradiction of an autonomous Mongolia under Chinese suzerainty and the guidance and protection of the Soviet.

Little or nothing is known in England or America about conditions in the new Mongolia or about the real feelings of the Outer Mongols towards the astonishing change that has come over their form of government. For the People's Republic of Mongolia guards its secrets well. No one, unless he be a Mongol or a Soviet citizen, or perhaps a Soviet sympathiser with adequate credentials, is allowed to enter this forbidden land. Nor is it clear why the Mongols and their Russian mentors should adopt this policy of strict seclusion; as though they feared lest the stability of their régime might be endangered by free contact with the outside world.

The history since 1912 of Russia in Mongolia has outward resemblances to that of Britain in Tibet, where the Tibetan authorities adopt a similar policy of excluding strangers from their land. No doubt the immediate motives in both cases are identical—to keep at arm's length unde-



Stanford, London.



Douglas Carruthers

*The descendants of Jenghis, women as well as men, are of a bold and independent spirit—*



*Gösta Montell*  
—and their goodwill may prove decisive in the struggle between rival Powers to control Central Asia

sirable influences; only the nature of the influences to be so excluded differs in each case. The policy of the Government of India in encouraging the Tibetans to shut out alien influences is essentially defensive, to keep undesirable strangers at a distance from the Indian frontier. The Government have no ulterior motives or aggressive designs of any kind; desiring only to see a peaceful and orderly autonomous Tibet serving as a buffer round India's north-east frontier. Allowing the Soviet the benefit of any doubt, the objects of their Mongolian policy may be the same. But, while the Government of India confine their activities to maintaining from across the Indian frontier friendly relations with autonomous Tibet and abstain from all interference in the internal affairs of Lhasa, the Russians are established in Mongolia and seem to pervade with their influence all branches of the Urga Government.

#### INTERNATIONAL PAWNS

The metamorphosis of Outer Mongolia from a state of mediaeval feudalism into a soviet republic is one of the most astonishing developments that has ever taken place in Asia. Until they were caught up in the Russian revolutionary maelstrom, the Mongols were, like the Tibetans, priest-ridden devotees of Tibetan Buddhism, living in their leagues and tribes and banners under the patriarchal rule of hereditary chiefs and princes. It would be difficult to imagine a more unpromising field for Communistic propaganda. Yet in a few short years the power of the lamas and princes has been broken; the new Mongolia, educated in the ideologies of Marx and Moscow, worships at the shrines of Lenin and the Communist International. (Or so, at any rate, one is given to believe.)

But beyond an arbitrary boundary across the deserts and prairies of Mongolia live other Mongols, within the borders of

Japanese-protected Manchukuo, who are being educated in exactly opposite ideologies: those of the ancient faiths and traditions of Asiatic Empire, as interpreted by the modern pundits of Japan. Their ruler is again a Manchu Emperor; and they are encouraged to look forward to the re-creation of a greater Mongol-Manchu State, under the protection of Imperial Japan. The Japanese have to all appearances a promising hand to play in winning Mongol sympathies, if they can curb their military propensities. They have created in Manchukuo a self-governing Mongolian province; and, before the recent outbreak of hostilities with China, they were working hard to wean the Inner Mongols from such allegiance as they still owed to Chinese rule.

Thus are the Mongols, once rulers of all Asia, become the pawns of international rivalries in the struggle between Russia, China and Japan. Manchuria has passed under Japanese dominion. Outer Mongolia has been absorbed by Russia. And now China reels back before the onslaught of the Japanese, who have pressed forward into Inner Mongolia so as to drive a wedge between China and the Soviet and to outflank the Red republic of the Outer Mongols.

Meanwhile Russia in turn consolidates her influence in Zungaria and Eastern Turkistan, to build up a defensive flank against the Japanese advance. The struggle for the hegemony of Asia carries on; the Mongols, divided and no longer masters of their fate, have to assume, whether voluntarily or because they cannot help themselves, the political colourings of those who dominate their tribal pasturelands. China, with admittedly the weakest hand, has played her cards badly, and has alienated Mongol sympathies. Whether Japan or Russia will be more successful time alone will show.

## II. Mongols of the Chinese Border

by OWEN LATTIMORE

*Mr Owen Lattimore, editor of Pacific Affairs, is widely known as an authority on the problems of Central Asia and, in particular, on the Mongols, whose language he speaks fluently and whose nomadic life he has shared. To them also his two latest books (The Mongols of Manchuria and Chinese Frontiers of Inner Asia) relate; and no one is better qualified to describe their traditional mode of existence or the manner in which it is being affected by the settlement of Chinese colonists beyond the Great Wall that, long ago, failed to keep the Mongols out of China*

THE traveller going north from Kalgan on the great Urga road from China to Outer Mongolia has nowadays to venture far beyond the Great Wall before he encounters the first Mongol. For a hundred miles, the plateau looks as though the twenty centuries or so of Great Wall history ended for good when the Chinese colonists began, in the modern period, to swarm over the Wall and cover the plateau with their farms.

The memory of Mongolia lingers, it is true, over a land that is now Chinese. The blue and yellow colours are Mongol—a powdery blue and a sombre steppe yellow, merging into brown—and so are the innumerable skylarks. Most Mongol of all is the amazing sense of distance. The top of the plateau is rolling land, in which a low but seemingly endless ridge, hardly more than a swell in the land, may mask the view to the front, while permitting a long view to the left and right. Then from the top of a hill almost imperceptibly ascended, of no great height in itself, your eyes are freed and your sight leaps over distances that make you gasp—over hollows that are pools of blue, and bleak, yellow, formless ridges, to the far heights of what seem like formidable ranges, until you toil toward them, when their outlines yield and they deploy into aimlessly scattered slopes and a few knolls of rock. Along the ancient road there still slouch caravans of camels; but every now and then they shamble off to the side of the road, huddling together and flapping ignoble tails half the size of a donkey's, at the labouring approach of some motor car or truck, grinding its way along the ruts.

At the side of the road are Chinese fields, not Mongol pastures; then comes a stretch of land with neither fields nor herds; the insulating territory that keeps Chinese and Mongols apart. This narrow strip of no man's land is one of the most absolute frontiers in the world. Mongols and Chinese are as different from each other as round felt tents and four-square mud huts. Their clothes are different and their food is different, for the Mongols eat things that Chinese consider unclean, and consider unclean things that the Chinese eat. The Mongol speech is more closely related to Hungarian, half across the world, than it is to the Chinese language only a few miles to the south. So marked is this difference that the Mongols, who do not have a word of their own to describe the Chinese kind of house, do not even borrow the Chinese word, but use a word brought all the way from Persia in the middle ages.

### TENT AND SADDLE

I hardly know of a Western traveller or writer who has not been exhilarated by his first entry into Mongolia of the Mongols. The life of the Mongol seems free and romantic: the horseman, after all, is a figure in the past of all of us. The life of tent and saddle seems to us a healthy return to a manly tradition echoing our own past.

This impression grows on the traveller who is lucky enough not only to ride where he likes over the free plains, to hunt and camp and explore, but to learn something of Mongol hospitality and to see perhaps the great summer and winter festivals, with their pageants of religious ceremony and



Douglas Carruthers

*The Mongol's pastoral, nomadic life is inseparable from the rolling plateau with its endless ridges, horizon upon horizon, where he can graze the horses that are his delight. Here, in the saddle, he is at home and free as the skylarks that rise about him in unbelievable thousands*

Gösta Montell





*Where grassy steppe gives place  
to desert, the Mongol is served by  
the ponderous, enduring Bactrian  
camel, remarkable for its long,  
blanket-like winter coat*

Douglas Carruthers

*Upon the ancient trails the cara-  
vans have plodded since the dawn  
of history, bearing the commerce  
of Asia, and Mongol caravaneers  
have cobbled the blistered pads of  
their camels' hoofs with leather  
patches (below)*

Owen Lattimore



games of archery, wrestling and horse-racing and lama 'devil-dancing'. The romantic echo of our own middle ages grows deeper and more spell-binding. Lama temples with their strange mixture of chaotic symbolism, barbarism and mysticism; the lamas who are like jolly friars and those whose real ascetism has left a spiritual mark on their features; aloof Living Buddhas in gorgeous robes, and the devout multitudes who come to adore them on their public appearances; grave lama dignitaries; princes with the frank air of men born to rule, greeting their equals in state and with ceremony, addressing their inferiors with authority but no condescension and ordering the affairs of their Banners or principalities as of right: all these build up the impression. The warmest memory that is sure to remain, however, is that of long days in the saddle with good companions; late talk crouching by a fire of dried dung in a snug tent, a little acrid with smoke; the free, bold bearing of the men and competent demeanour of the women—not huddling together to titter, but doing the work of the tent and about the tent, which is theirs by custom, and speaking up for themselves, when it is a matter within their concern, even in the presence of men and strangers.

#### THE MONGOL CODE

In all this the stranger must take his own part, and work hard at it, if he wants to make the best of what is there before him to be learned and experienced. The true steppe herdsman must be able to tell at a glance the condition of the stranger he meets and adjust accordingly the form of words which he uses. Each individual knows the forms and phrases that he should use in addressing others; it is very largely because he knows just where he belongs and where others belong that he behaves with a certainty that gives the stranger an impression of personal independence.

For the same reason, women give the

impression of having something very like equality with men—partly because they ride as well as men, take their part in conversation with men and do what they have to do without orders from men, and partly because the stranger has a pre-conceived notion that 'Asiatic' women are creatures of the harem, incapable of doing anything without being told. As a matter of fact, what Mongol women have is not equality, but recognized status—a very different thing. For this reason, sitting in her own place in the tent, while the men are in theirs and the guests in theirs, attending to her own duties and taking part in the conversation (but only that part which is prescribed for her), a woman seems to be independent when in fact she is only carrying with the lightness of life-long habit an intricate discipline and code.

Within one day the life of a Mongol, which we so lightly think of as 'primitive', may cover an extraordinarily intricate range of practical activities and social observances; indeed, perhaps the most succinct description of this life is to say that to live it well requires an extraordinary versatility. A proper man must know how to gather dry dung and make a fire with it; how to make his way forty miles across country in a night's ride, and end up at a good camping-place; how to receive a lama calling at his own tent; how to address a noble or prince he has never seen before; and an infinite number of other things. What you do you must be able to do with the gravity and competence that show self-respect, but without the rigidity that might indicate a parvenu. I have travelled for weeks with a man who was my paid servant—by my standards. When we were alone we were exact equals, socially, by his standards; for when there is all the work of the road to be done and only two men to do it, social precedence is nonsense. When we were in company, however, long before I could gauge people accurately for myself, I learned to delight



Gösta Montell

*A Mongol woman of rank: competent, dignified and keenly conscious of her recognized status*



Owen Lattimore

*Contrasts of wealth and poverty exist in Mongol society, as in others. Dresses of flowered silk and hats with spires of gold and silver filigree bespeak the luxury of rich girls—*

*Owen Lattimore*



*—while their poorer sisters are prematurely aged by the hardships of nomadic life; battered by winds from which the steppe affords no shelter; worn by the incessant toil of pitching and breaking camp, drawing water and loading camels with the heavy casks*

in the nicety with which he would indicate the required behaviour.

#### CALLING ON A PRINCE

We might start the day before dawn, after camping in the open without even putting up the tent. First we would make a fire and boil tea in a canister, over dung that I had gathered the night before while he made supper. The light of the fire would rouse the skylarks that had settled for the night in the grass near us, and they would hover singing in the darkness only a few feet above the ground—*adochi*, ‘horse-herders’, is one of the Mongol names for them, because horse-herders also whistle all summer, ‘for the wind’, when wind is needed to keep down the stinging flies; but not in winter, when there is too much wind anyway. Then we would load the camels, the loads having been exactly disposed the night before, so that nothing would be mislaid in the darkness, and move off. As we rode, more larks would rise under the noses of the camels, and hover very little higher than our heads, accompanying us for a few strides and singing, and then dropping back into the grass until the dawn came.

By afternoon I might be calling on a prince; at a ‘palace’ like those of the old Manchu aristocracy in Peking, whose quarters the Mongol princes have imitated. At one side and in front of the buildings are always a number of round felt tents, for the use of tribal dignitaries and the soldiers and servants doing their turn of duty at headquarters. Often the buildings are only for show; in the courtyards there will be the felt tents in which the prince and his household live, not only to be more clean and comfortable, but also because the ordinary rules of precedence and other similar ceremonial of a prince’s life are based on traditions that originated in round tents and are apt to be thrown out of gear by the square geography of a house. At a convenient distance, but usually just out of sight over a low hill,

are two or three small Chinese houses, each of which also has several Mongol tents attached to it. These are the headquarters of Chinese traders doing business in the Banner or principality. The prince himself usually has capital invested in their undertakings.

The essentials of procedure are the same whether you call on a prince or camp beside commoners. There is nothing to prevent you from rushing up in a motor car, every toot of whose horn says ‘important stranger’ — or ‘self-important stranger’. You will not be received with courtesy, but you will find it harder to get beyond the formalities; and only a Mongol would appreciate how accurately the manner of your reception echoed the noise of your approach.

The Mongol’s way, however, is just to drift in. He comes always from the front, so that his appearance can be noted. He seems just to happen to be there. The first exchanges of question and answer between the man travelling and the man on the spot are never direct and personal, but formal. This makes it possible for men to estimate each other’s character, condition in life and business of the moment without rudeness. Where skill counts is in ‘changing gears’ from the formalities to ordinary talk; I know of no more civilized way of judging for yourself whether you are pausing for acquaintance or beginning a friendship.

#### FESTIVAL TIME

You can, in fact, on your own merits, make a place for yourself in Mongol life. If so, the feeling grows on you (to the point of becoming sentimental and misleading) that it is a life apart. This is especially true at festival times, which evoke the memories and traditions of the past; when women put on all the finery of their silver and coral headdresses and men their most dashing gowns, handsome boots and splendid hats.

The *obo* ceremonies and games, in high



Owen Lattimore

*In front of their tent, decorously draped with rugs, a Mongol official and his family agree (with one dissentient) to pose for the camera. (Below) Women of the Chahar Mongols kneel, waiting to be admitted to the presence of a Living Buddha, who will eventually bless the multitude*

Owen Lattimore





Owen Lattimore

Owen Lattimore

*The lama monasteries and temples are fixed points in the Mongols' nomadic existence, with lands and lay 'subjects' attached to them*



*An aged lama, seated in his ceremonial robes in the courtyard of a temple, presides over the celebration of the midwinter 'devil dance' or purification rites*



Owen Lattimore

Conspicuous in the Mongolian landscape are the obos or cairns, marking boundaries and any hills regarded as specially holy. At wells in the sandy deserts, where stone is not available, tamarisk boughs are sometimes heaped up in honour of the gajar-on ejen, the presiding spirit

Owen Lattimore



summer, are general assemblies of each Banner: the lama clergy, the nobility and the common people. Every formal relationship is formally paraded, marked and renewed. Each man takes stock of his 'neighbours', of whom some may live at the distance of a hard day's ride or two. By the time the show is over, the mutton eaten, the songs and ballads sung, the snuff bottles passed in courtesy and returned and the pipes gravely smoked, it is plain to all who has risen in status in the last year and who fallen, whether the government of the Banner is going well, who stands high in influence, and so on. When the gathering scatters, the whole intricate net of personal relationships has been renewed in the sight of all.

The *obo* or cairn is made of stones piled up to the honour of the *gajar-on ejen*, the divinity of the place or literally the 'owner of the land'. The Mongols do not have private ownership of the land; all the territory of the Banner belongs to the Banner as a whole, and people are allotted their camping-places and pastures by social status, not by right of ownership; but essentially man is regarded as a transient, halting on the land by courtesy of its divine but indefinite owner. *Obos* are set up to mark boundaries and any hill that is regarded as specially holy: each temple has its own *obo* (and this, together with the placing of inscribed prayer-flags on many *obos*, shows how Tibetan lamaism has grafted itself on to older beliefs); but in addition each Banner has its common *obo* of the whole Banner.

About midsummer there is a round of *obo* festivals. The ceremonies begin at dawn with prayers and sacrifices presided over by the most notable lama dignitary available. Then come the games—horse-racing, archery and wrestling, accompanied and followed by feasting and ballad-singing.

In horse-racing the horses are classified by age, and the distance is usually at least ten miles. The jockeys are children—sometimes girls as well as boys—usually

from about eight to twelve years old. They ride in gay parti-coloured costumes, without saddles or stirrups, simply on a pad of felt. Instead of a whip, each rider carries a flat, marked piece of wood, given him by the starter, which he has to deliver to the judges at the finish. As the children are not strong enough to force their mounts, everything depends on the heart and endurance of the horse himself, who runs free at an easy gallop. When they come in sight of the finish, however, the owners ride out to meet them, with groups of their friends and partisans, and closing in around them, lash and urge them to a final sprint.

#### WRESTLING: THE NATIONAL SPORT

Racing is 'the sport of kings' and the rich. Archery is hardly a sport, but rather a dignified exercise of the aristocracy. Wrestling is the sport of commoners and the great alike. A big square is roped off, and the wrestlers are divided into two 'camps', each with a tent and a herald. A full 'set' of wrestlers is 128 men. The herald at each tent chants the name and prowess of each man about to go into the ring; while the wrestler waits, a hat is held over his head by one or two attendants. When his name is called, the wrestler advances with contorted leaps and bounds, and as this 'dance', and the costume worn, vary from Banner to Banner and tribe to tribe, the champions are easily recognized.

Each couple advances and does a reverence to the presiding dignitaries and a small altar set out in the square, and then the men close. No holds are barred, and kicking is allowed, but not striking with the fist. The costume consists of a leather jacket, studded with round brass nails; trousers, usually covered with a kind of overall, a separate one for each leg; and the heavy Mongol boots, which have been stiffened with flat pieces of wood inside. As a rule, the men grasp each other by the shoulders, sleeves or armholes of the jacket, and lock heads, straddling wide apart. They try to rub each other's faces against their



Owen Lattimore

*Sport is in the Mongol blood. Prince Demchukdongrob, leader of the Inner Mongolian nationalist movement, at archery—practised with a horn bow and regarded as a dignified exercise of the aristocracy*

brass studs, and to kick and trip. A number of pairs may be wrestling in the square at the same time, and some of the bouts are quickly over and some are prolonged.

Any kind of fall counts. The loser then trots off, while the victor does a dance of triumph before the judges; he is given a handful of dry bits of cheese, which he usually throws into the air, perhaps putting one piece into his mouth. The original 128 contestants are thus reduced to 64, then to 32, then to 16, 8 and 4, and when at last the two finalists come out, alone, the excitement is terrific. Even the small boys, their blood heated by the spectacle, who have been wrestling and fighting on the fringes of the throng, worm their way up to the front. The women, lined up at one side of the square, preen themselves. The men, at the other side, who have been drinking fermented mare's-milk, lean forward. The winner of such a contest is no common hero, and deserves his fame, for by this time he has been through a terrific

battering, besides displaying the skill of a master. Broken bones and ruptured blood-vessels are not uncommon.

#### THE ADVANCING CHINESE

This is Mongolia—part of it, the old Mongolia. Almost every Westerner I know who has entered at all into Mongol life has developed a sentimental bias. He grows to like the Mongols so much, as Mongols, that he is jealous of every change in the old ways and weakening of the old traditions, and resentful, like the Mongols themselves, of the ominous colonization advancing from the south. The attitude is quite human, but it is not the way to understand the making of history in Mongolia today. For that, it is necessary to come away from the Mongols every now and then—in order to get the contrast—as well as to go among them, and above all to study closely the Mongol-Chinese border, to mark every symptom of change and every sign of the past.



Owen Lattimore

*Wrestling is enjoyed by noble and commoner alike, and at festivals is planned on a grand scale, up to 128 men taking part. No holds are barred and the costume includes a leather jacket studded with brass nails against which the contestants try to rub each other's faces*

Gösta Montell





Owen Lattimore

*Between Chinese areas of colonization and Mongol pastures is a strip of no man's land ranged by troops of horsemen who are half-Mongol and half-Chinese, half-soldier and half-bandit*

In this way history changes its aspect from a simple contrast between Mongol nomad and Chinese farmer to something much richer in texture. Old millstones and the stone rollers used to flatten ploughed furrows in order to conserve moisture can be seen scattered through Mongolia in surprising numbers. Here and there can be seen the ruins of walled cities, and a large number of these have inscriptions and carvings that are Chinese, not Mongol; yet they may record principalities that were Mongol or Turkish. It is evident that agriculture once penetrated much farther into Mongolia than it does even at the present time of rapid Chinese colonization; but at the same time it is clear that what then prevailed was an interpenetration of Chinese and nomadic Mongol-Turkish culture and economy, not a massive displacement of nomads by settled Chinese. Both Mongol and Chinese chronicles, and even legends that still survive, confirm this kind of evidence.

There can be no doubt that repeatedly, in

the past, two processes interacted; nomads who rose to power along the border acquired Chinese as well as nomad subjects, and enriched themselves by drawing on the resources of two kinds of economy; and similarly Chinese border potentates, who had to secure themselves against the nomads by adopting nomad methods, at least up to a certain point, ended by converting themselves and their subjects into people of a mixed economy and society.

#### BORDER SOCIETY

Moreover there are survivals of the same kind of thing today. Inner Mongolia is not only penetrated but saturated by Chinese and Chinese interests of one kind and another. There are Chinese traders with fixed posts and traders who travel on regular rounds or at a venture; and since not only rich Mongols but princes and other nobles have capital invested in such business, and since it comes under the regulation of the Banner authorities, it is not too much to say that here we have a



Owen Lattimore

*On this disputed border, adventurers can still establish little principalities. The stronghold of a robber baron who grew opium and taxed passing caravans until he was killed by a punitive expedition*

modern survival of the mixed society and economy, in which the lower strata appear separate, but are actually coordinated at the top, in the hands of those who control the political mechanism and participate in the economic mechanism. This is in the Banners, where the princes prevail; in the colonized territories, and particularly at the fringes of them, Chinese interests not only dominate but sometimes take remarkable forms. There are Chinese frontier grandees who can quite correctly be called tribal princes of a special kind; they may have a fortified 'capital' which is a small town; an adjacent area of cultivation, and wide pasture lands. The people who are nominally their tenants and employees are actually their subjects: they have private armed forces, and some of them openly lead or send these 'armies' on bandit raids in the long season between the autumn harvest and the spring sowing.

In other colonization regions the Mongol princes have remained, and succeeded in holding on to the local power by con-

verting themselves into landlords, with both Mongol and Chinese tenants. The Kharchins, Tumets, Naimans and other Mongols of Jehol province have become partly or entirely agricultural, in this way; so have the Tumets of central Suiyuan and many of the Mongols of the Ordos Confederation in the south-west of the same province.

Still another phenomenon can be seen in other parts of Inner Mongolia, which are nominally Mongol and nomad-pastoral; here the owners of the herds are Mongols, who rarely do a stroke of work. The shepherds are all Chinese. They are usually boys who ran away to the Mongols in time of famine in the Chinese cultivated areas; they grow up speaking Mongol and dressing and living like Mongols; and in some Mongol Banners such Mongols as can afford it do not render the personal military service for which they can be levied under Mongol law, but pay Chinese of this class to take their places.

All such phenomena, which are quite as



Owen Lattimore

*A trading caravan bound for Chinese Turkistan via Mongolia. The beflagged spear shows that it belongs to one of the Chinese firms that have been active in the Mongol trade for generations*

Owen Lattimore



*Shrewdly experienced in making money out of two worlds: a Chinese trader among the Mongols*



Owen Lattimore

*Hovel is fast replacing tent along the Mongol-Chinese border, as the wooden plough of the Chinese colonist drives out the Mongol herdsman, than whom, however, he often lives more poorly*

Owen Lattimore



*Today Mongols, arriving in Kalgan to trade, are strangers in a city that was once theirs*

interesting in their way as the 'real' Mongol life, and often much more curious and involved, can best be studied away from the zones that have been influenced and dominated by the modern railways built from China up to and along the frontier. Railways, I believe, have blinded most observers to what are really the major currents in the Mongol history of today. It is railways that account for the 'flooding' of large parts of Inner Mongolia by Chinese colonists; which has replaced the older, more gradual interpenetration of Chinese and Mongols and the formation of mixed societies and cultures. It is this which explains popular and misleading accounts of the great Chinese march into Inner Mongolia and the Mongol regions of western Manchuria. People have supposed that this will lead not only to the complete displacement of Mongols by Chinese, but the establishment of a 'Greater China' homogeneous with the rest of China.

Nothing could be more misleading. Such prophecy assumes that all agriculture is the same, and that the question to be decided lies between Chinese agriculture and Mongol pastoralism. The truth is that the frontier railways are in fact almost as destructive of the old Chinese system as they are of the old Mongol order. The traditional agriculture of China is of a specialized, 'intensive' kind, with the division of fields into small units and a maximum use of human labour and a minimum use of livestock. All these considerations result in a social organization of a special kind.

The conditions of the Inner Mongolian plateau, on the other hand, require an 'extensive' agriculture. Labour, instead of being distributed relatively evenly throughout the year, is concentrated at certain periods, especially the harvest, and must be supplied either by migratory seasonal labourers or by machinery. There is much more use of livestock: and partly because of uncertain rainfall and early

frosts which may ruin the farmer's year, and partly because the soil in many places is rapidly exhausted by agriculture, there is a tendency toward developing a mixed economy of farming and grazing, even among Chinese who begin with no skill in the handling of herds.

#### MONGOLIA STIRS AGAIN

What is really taking place today is a modernized version of an ancient historical cycle. The older, slower process by which border Chinese adopted in part the habits of the 'barbarian' nomads, while border Turks and Mongols converted themselves to a partly Chinese way of life, resulted in building up states and principalities that were perpetually out of balance, because of the changing degree of compromise between their component elements. They were restless, and they communicated their unrest alternatingly to the Chinese who had remained true Chinese and the nomads who had remained true nomads—an unending historical friction which had a great deal to do with generating the great 'waves' of nomadic migration and conquest.

In the modern phase there is going on a momentous adjustment, in the same geographical region, which is changing the fate of Chinese and Mongols alike. For this reason the striking rivalries of today between Chinese colonization of Inner Mongolia and Japanese imperial control and economic exploitation, and the accompanying struggle for the control of the Inner Mongolian nationalist movement among the Mongols themselves, ought not to be taken merely at their political face value. No more should the Soviet Union's interest in the revolutionary development of Outer Mongolia. The fate that is being decided for the children of Jenghis Khan and his warriors today turns on the struggle to prove what kind of life and human activity are best fitted to the twentieth century and all that it means, in the geographical setting of Mongolia.

# Tinos

## The Isle of the Panaghia

by F. NEUGASS

*As long ago as the 6th century B.C. the Cyclades possessed a centre of religious interest in Delos, the birthplace of Apollo, and it became a place of worship and pilgrimage. In 1824 an image of the Holy Virgin, the Panaghia, miraculously discovered in Tinos, began to attract pilgrims to the Cyclades and renewed their ancient association with religion*

USUALLY there is nothing remarkable about a trip to Tinos; it is just one of the many Cyclades with a few little harbours, villages and church towers, bare rocks and poor gardens amid interminable olive groves. But twice a year Tinos has its great day. It celebrates the festival of the Panaghia, and the quiet island is invaded from all sides.

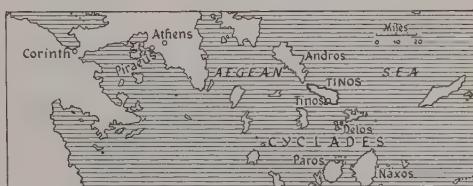
Buried deep underground, an image of the Most Holy Mother of God, the Panaghia, was discovered in a miraculous manner in 1824, and since then the fame of Tinos as a place of pilgrimage has steadily grown. Something like 50,000 people congregate there on March 25, the feast of the Annunciation, and August 15, the Feast of the Assumption of the Virgin. They come to pray in the church, to kiss the ikon, to see the procession, and to dedicate to the Holy Virgin gold, money, even pearls and diamonds. These gifts are so rich that the church has acquired an enormous fortune. All the year round the whole island lives on the income of its patron saint.

Innumerable ships, gaily decked with pennons, lie anchored in the harbour of Piraeus during the days preceding the pilgrimage, and round about, in booths and carts, everything is sold that the pilgrims could require on their voyage—provisions, coloured rugs, and, above all, thousands of silver votive tablets on which are depicted, in relief, parts of the body, as well as boys in sailor suits, cows, sheep and pigs, and brides at the altar. Pious pilgrims dedicate these tablets to the

church in Tinos in gratitude for the granting of their prayers.

A curious life unfolds on board. Closely packed, hundreds of pilgrims sit and lie everywhere on hand-woven mats and cushions, surrounded by flasks and plaited baskets full of foodstuffs. Many invalids take off their shoes; despite the great heat they are covered with thick rugs; they lie there, exhausted and apathetic, while their families look after them. Women kindle charcoal fires in earthenware vessels and encourage the glow with round straw fans. Food is prepared, and the eating and drinking never ceases.

Many blue flags with white crosses greet the new-comers from the jetty at Tinos. There is a dense crowd on the quay and we have some difficulty in making our way through the gaily chattering throng. At the serried rows of tables in front of the little cafés not a seat is vacant. There are booths and stalls everywhere. The roulette tables under the trees along the promenade are extremely popular, for the Greeks are inveterate gamblers. Cigarette vendors and shoe cleaners push their way forward. We know their faces from Athens. They also want to profit by the Madonna's festival.



But the activity is greatest in the street which, gently rising from the sea, leads to the shimmering white church of the Panaghia Evangelistria. Here a sheep is being roasted whole on the spit; there someone is dropping fish or little cakes into boiling oil. A small circus has pitched its tent by the roadside. There are many cripples, terrible to behold, whom the holy place has not cured of their infirmities. Blind people are playing the fiddle and singing melancholy songs. Hawkers are crying up their wares, children blowing their little trumpets. There is a smell of hot oil, sweat and sweet wax.

The throng swarms thickest near the church. The pilgrims scatter all over the open places in front of it, throughout the courtyards and cloisters, in search of a vacant spot, for of course the few inns on the island cannot put up all these pilgrims. Many have already settled down, on rugs

or in tents. Some have wrapped themselves in their shawls and amidst all the bustle have gone to sleep.

On the noble staircase that leads into the interior of the church a dense crowd is waiting for admission. Progress is slow. The police have put up a barrier and only permit a few people at a time to pass through. And thus they stand expectant: peasant women under their black head-shawls carrying small children; pale young girls who are lame, supported by their mothers or aunts; blind people with closed eyes, and an astonishing number of men and half-grown lads. A curious sight they are in their short, white, pleated skirts, their embroidered waistcoats and red beaked shoes, the tips of which are ornamented with big pompons. The Thracian women are particularly picturesque—their long tunics of white cloth embroidered in black stand out stiffly



*All photographs by F. Neugass*

*The harbour of Tinos which, twice every year, is invaded by thousands of pilgrims who come to celebrate the festivals of the Panaghia, the Holy Virgin, and to worship her miraculous image*



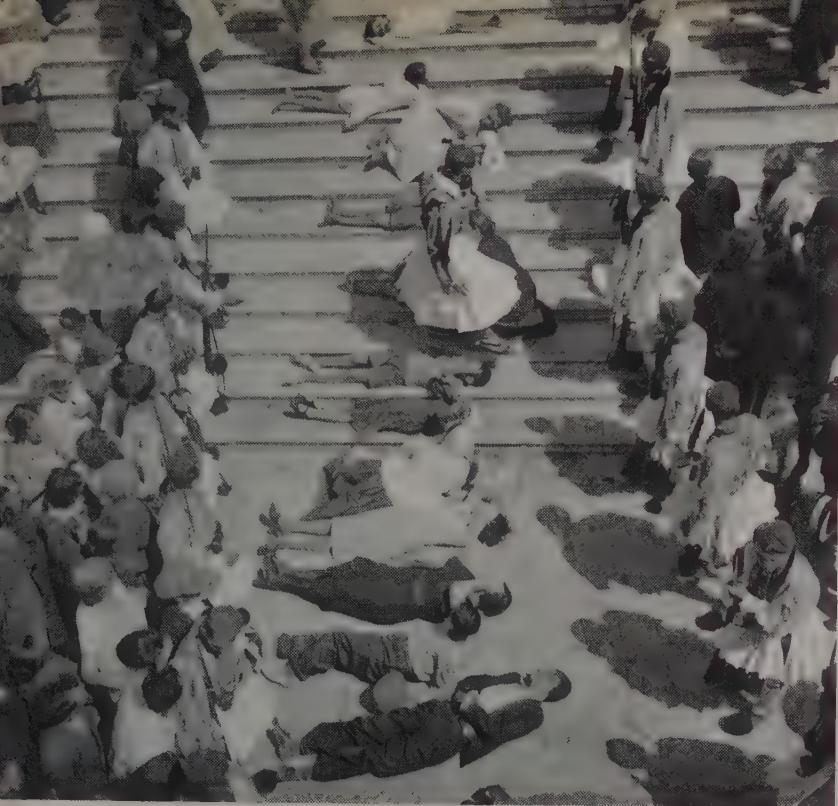
*Arriving mainly from Piraeus, closely packed aboard ship, the pilgrims include families with children, invalids and often 'cripples terrible to behold', each earnestly hoping for a miraculous cure*



*As night gathers over the little town, the courtyards, cloisters, and open places (particularly in the neighbourhood of the famous church) are thronged with people preparing to sleep out-of-doors or under makeshift tents*



*Early on procession day royal guards from Athens line the noble staircase leading to the church*



*Soon the sick, halt and blind are laid or lie down upon the steps so that the virtue of the passing Panaghia may heal them*



*Glittering with countless pearls and diamonds and enclosed in a glass shrine, the precious image is solemnly borne by soldiers through streets filled with kneeling crowds, to the sound of music and the ringing of bells*

from their bodies. All are imbued with the sacred atmosphere of the place. In whispers they exchange stories of the Madonna's latest miracle. They point out to each other children frolicking among the crowd, who but a year ago were lame.

Silently, in small groups, they enter the church, carrying long yellow wax candles. Slowly they advance, crossing themselves and bowing incessantly. The twilight place, glimmering with the light of many candles, is heavy with the sweet odour of incense. Innumerable silver lamps and crystal chandeliers hang from the vaulted ceiling, and the walls are entirely covered with gigantic silver ikons.

The glass shrine containing the image of the Virgin is covered with a costly baldachin. The Panaghia's countenance is barely visible, so closely is it set with pearls and diamonds given by grateful pilgrims. In an endless line they file slowly past the holy image. Each one devoutly kisses the glass over her face and offers up a rich donation to the fat bearded priest standing next to the shrine. Young girls wipe the glass with cotton-wool after every kiss.

Night has fallen when we leave the sanctuary, but a great multitude still waits on the steps of the church. Countless electric lamps illumine the contours of tower and façade. Warships sent over by the Government in honour of the Festival focus their searchlights on the spot. And, filled with hope for the morrow, the sick and halt and their attendant families in their thousands slumber in the courts and arcades around the church. Soon there is no sound beyond the rustling of palms and cypresses and the plashing of water in marble fountains.

\* \* \*

Monotonous chanting issues from the church when, in the heat of the noonday

sun, the great staircase is cleared. The Royal Guards from Athens in their gorgeous uniforms line the steps. Behind the soldiers expectant pilgrims press—men, women and children.

Choirboys with lamps and tall silver crosses wait in the porch. A military band in the courtyard plays a slow march. The crowd stands motionless.

Then, surrounded by priests in magnificent vestments, the Metropolitan appears, a golden crown on his head. The deep note of the big bell intermingles with the clearer ringing of many smaller ones. Slowly the procession moves forward and the precious shrine with the miraculous image becomes visible, solemnly borne on the shoulders of the military.

Suddenly a peasant woman pushes aside two soldiers, darts into the middle of the staircase and lays down on it a child that she had held hidden under her shawl. It is crippled and does not move. But in another moment the Panaghia will pass over the unfortunate being and heal its disease. And others follow her example.

Soon there is an invalid on every step. Blind people are led there, lame ones carried, others drag themselves along on crutches. All are breathless with expectation of the miracle . . . but one of the priests has given an inconspicuous signal. A command rings out and the soldiers advance to clear the steps. The peasant woman resists to the last. Carefully protecting the child's head she gently presses it down on to the step. The soldier has to use force to remove the weeping woman and her child.

Not until then can the Virgin proceed on her way through the little town, surrounded by incense, to the sound of music and the ringing of bells. Wherever she passes, the devout multitude drops on its knees in humble prayer.

# The Meaning of the Danube. II

## Traffic and Trade

by JOHN LEHMANN

*How can unity and peace be brought to the peoples of the Danube Basin? Many answers to this question have been given since the Turks retreated and the long-suppressed nations began to raise their heads. The Czech historian, Palacky, said that if Austria did not exist it would have to be invented; Friedrich Naumann in his famous book Mitteleuropa argued that it was Germany's destiny to dominate and weld together her south-eastern neighbours. Now the question is again becoming acute. Mr Lehmann, having in an earlier article traced the historical and cultural influence of the Danube on the Danubian peoples, describes the interplay of their economic interests and the important, if little-known, experiment in practical internationalism represented by the International Danube Commission*

IT was in 1922 that the Statute of the Danube, which had been foreseen by the Peace Treaties, came into force; it had been worked out in detail and agreed upon in Paris the previous year. Directly after the war, in order to bring some control into the chaos that was left of navigation on the Danube, there had been a special military régime under the aegis of the victorious powers, with an Interallied Danube Commission which functioned from October 1919 to June 1920. The results of this régime were not very satisfactory, but they were admittedly provisional; and the final establishment, under the Statute, of the International Danube Commission, was greeted with relief and hope by all parties concerned.

The experiment is not only fascinating in itself, but repays study by anyone interested in the development of closer co-operation between European nations in the future; for it has worked with remarkable harmony and success during the fifteen years of its existence, and the right of the non-riparian states to use the Danube as a trading highway has brought advantages to the riparian states as well.

It is not, however, the first attempt at introducing an international régime to the Danube: in 1856, by the treaties which ended the Crimean War, a European Danube Commission was set up whose main task was to keep the Danube Delta,

from the river-port of Braila to the Black Sea, free for international traffic. The fact that it consisted of representatives of France, Great Britain and Italy only, is sufficient proof that it was as much a counter-move to Russia's Danubian ambitions as a plan for improving international trade.

This Commission, with the addition of a Rumanian representative (Rumania had no Black Sea coastline until 1878) was granted a further lease of life by the treaties of 1920, taking over control from the International Danube Commission at Braila. Since then, Rumania has raised certain understandable objections to the arrangement, preferring that the whole Danube be administered by the I.D.C. The holding of an international conference to deal with this question has, from time to time, been mooted, but there is no doubt that it would have to consider many other more complex questions at the same time.

### TRAFFIC REGULATION

The Statute of the Danube established the following important laws:

(1) that from Ulm to the Black Sea the whole course of the river should be open to traffic and trade of every nation without distinction, whether riparian or non-riparian;

(2) that in the Commission each riparian state should have one representative, ex-

cept Germany, which should have two (being treated as consisting of Bavaria and Württemberg), and that in addition the non-riparian states of France, Great Britain and Italy should also have one representative each [Germany, as already stated in a previous article, ceased to be represented on the Commission when Hitler denounced, in 1936, the sections of the Peace Treaties which internationalized the Danube among other rivers];

(3) that it should be the business of the Commission not only to see that freedom of traffic is maintained, but also to plan all necessary long-term works of improvement in the conditions of navigability, and to supervise the annual works carried out by each state, the costs in each case being borne by the state or states through whose territory the section of the river to be dealt with is running; and

(4) that transit traffic should be entirely free from any form of exceptional taxation, or of customs duty.

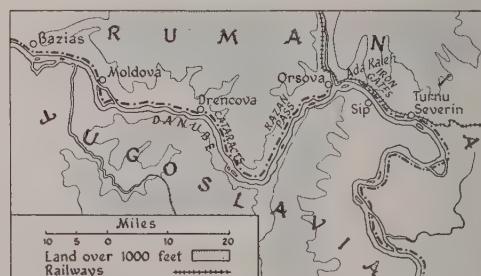
In addition to the Danube itself, the Statute also internationalized certain important tributaries for some part of their course, as for instance the March as far as it constitutes the frontier between Austria and Czechoslovakia; though at the same time it failed to internationalize certain other very important tributaries, such as the Save, which flows into the Danube at Belgrade.

What actually happens in practice can best be seen by taking an example. The kingdom of Siam, let us suppose, suddenly, for some mysterious reason which sets the sleuth-hounds of the daily Press and the various national Intelligence Services guessing for many weary months, decides to set up its own Danubian fleet of tugs, barges and motor-boats. The Danube, as every schoolboy knows, does not at any point run through the territory of Siam, nor is Siam represented on the I.D.C.; nevertheless there is nothing in the Statute to prevent her carrying out this so disturbing project. On the contrary, the Statute

expressly provides that she shall be allowed to set up the agencies and wharfs for the new shipping company in any of the harbours of any of the riparian countries she chooses. It also provides that, though her barges will be subject to the same duties as those of any other country when passing points where heavy administrative costs compel the I.D.C., or the particular countries it sanctions, to levy a toll on all shipping, the mysterious cargoes so secretly packed up, which she is carrying to Czechoslovakia, say, or Austria, must be free from the prying eye of the customs official and his ever-yawning coffers until the country of destination is reached. The same with the equally mysterious cargoes stored in the Siamese barges and motor-boats as they hasten homewards, downstream; in vain the Intelligence Officer offers large bribes to the officials of transit countries, for the cargoes slip by to the sea, unopened, undivulged.

#### THE PROBLEM OF THE CATARACTS

One of the most interesting provisions of the Statute is in Article XXXII, that there shall be a special Administration, under the general control of the I.D.C., of the sector between Moldova and Turnu-Severin known as the Cataracts and the Iron Gates, where the Danube breaks through the Carpathians.



This sector is peculiarly tricky for navigation, partly owing to the narrowing and twisting of the river between the cliffs, and the consequent eddies and counter-streams and silting-up of sand-banks, partly owing



By courtesy of the I.D.C.

*The British Delegation on the International Danube Commission enjoys a tour of inspection at the Iron Gates: Mr Douglas Keane and Captain John Taylor in one of the Commission's motor-boats*

to the unusually sharp descent made, particularly at the Iron Gates themselves, below the island of Ada-Kaleh. This makes constant supervision, improvement works, and assistance to shipping necessary, and it is not too much to say that the administration of this sector forms the major part of the I.D.C.'s activities.

Offices are maintained in Orsova, on the Rumanian side between the Kazan Pass and the Sips Canal, and here a representative of the Commission is always at hand to supervise the separate services of works and navigation, and the special financial office as well.

To keep the Administration scrupulously impartial, the office of works has its own independent building on the Yugoslav bank directly opposite, and if the chief of one service is a Rumanian, his immediate subordinate will be a Yugoslav,

and vice versa. The pilots, however, of whom the Commission keeps a large number, highly qualified, in continual readiness, may be and are of any nationality.

All the officials of the Administration enjoy special semi-diplomatic privileges, and may travel between the two banks—that is, the two countries—without hindrance or formality. The motor-boats of the Administration may be seen any day flying their own gay flag, the blue and white colours of the I.D.C. crossed by the Rumanian and Yugoslav colours, plying up and down and across the river.

The sector of the Cataracts forms the most difficult problem for ships going up or downstream; and in this sector the most difficult moment is at the Iron Gates themselves, where in the old days a field of rocks stretching across the shallow, falling river-bed made passage practically impossible,



*By courtesy of the I.D.C.*

*As the steamer sweeps through the section of the Cataracts, the traveller may see the Vaškapu at work, a tug specially designed to assist others against the racing stream; and further down the sudden narrowing of the cliffs toward their famous bottle-neck: the Kazan Pass*

*John Lehmann*





John Lehmann

*So powerful is the current in the Sips Canal, constructed to avoid the treacherous rocks of the Iron Gates, that even the strongest tugs, such as the D.D.S.G.'s Oesterreich, are glad to accept the aid of the locomotive that pulls valiantly up the Yugoslav bank*

John Lehmann



except at enormous risk, when the water was low. It was an international commission set up in 1874 that gave Hungary, in the interests of the commerce of all the Powers, the mandate to improve conditions in general in this sector, and to construct in particular a canal within the river where shipping could pass without danger.

The famous Sips Canal was thus created and opened in 1898; the I.D.C. has simply taken over from Hungary, making only one notable innovation in the use of locomotives for traction, instead of the unique and powerful tug which still performs similar services further upstream.

#### STEAM VERSUS STREAM

The process of passage is fascinating to watch. The strongest tugs on the Danube, such as the D.D.S.G.'s *Oesterreich*, the Anglo-Danubia's new *Princess Elizabeth* (made by Skoda at Komarno) and Yugoslavia's *Trajan*, are incapable of drawing their barges upstream against the race of waters that foams through the narrow canal. As soon as one of them is sighted, the locomotive gets up steam and the long hawser is unwound from its belly; this is paid out over a projecting platform, and then, when the tug itself is already battling against the full onslaught of the stream, connected with the rope the leading barge throws out, drawn in and fastened onto its deck. The locomotive now begins to advance along the rails (which by the bend at the upper end of the canal are reinforced against the outward pull) probably just a little ahead of the tug itself with which it is now sharing the effort, and both proceed on their laborious journey for twenty minutes or more. Meanwhile on a rise at the head of the canal the control-station operates a huge ball-signal which indicates to shipping coming downstream, hidden from the canal by the rise itself, whether they may pass or not. Motor-boats and smaller craft are allowed down when a big convoy is coming upstream;

seeming to manœuvre like a racing motorist—to the inexpert eye at least—they plunge past the swinging barges in a minute or two and out again into the full stream.

The Sips Canal is on the Yugoslav side and those in charge of administration on the spot are all Yugoslav citizens. The whole cost to the I.D.C. of the work in this sector of the Cataracts is met by levies on all the shipping without discrimination, and the actual rate to be paid can be and is altered according to the changing budget requirements of the Administration. It is very rarely indeed that any differences of opinion occur between the shipping companies and the I.D.C.; the dues have not been excessive, and the works undertaken with this income have been well thought out and efficiently executed. The Administration remains in continual contact with the secretariat of the I.D.C. far away in Vienna, where it has the able services of the British Consul, Captain Taylor, as a permanently resident delegate; and from time to time commissions are sent down to study the needs of the sector—or indeed any other sector—on the spot.

It should be said that, in addition to its actual work of administration, the I.D.C. keeps in view more general political and economic questions, such as the need for more efficient co-operation between rail and river, and the still unnecessarily long formalities which every boat has to undergo at every frontier to the immense detriment of the speed of delivery in river traffic, and uses all its influence to bring about improvements.

#### THE DANUBE BARGE

Along the pretty quays of the little town of Orsova, one can see on a moonlight September night the sleeping shapes of tugs and barges from a dozen countries in Europe, including perhaps the *Norfolk* and the *Charles Dickens* of our own Anglo-Danubia Company. The funnel of the Czech tug waves very slightly, like a water-



*John Lehmann*

*The inhabitants of the Danube barges form a truly international community. In any of the harbours the bargee's next-door neighbour may belong to one of a dozen different nations—*



*John Lehmann*

*—including Great Britain, represented by such vessels as the Norfolk of the Anglo-Danubia Company*

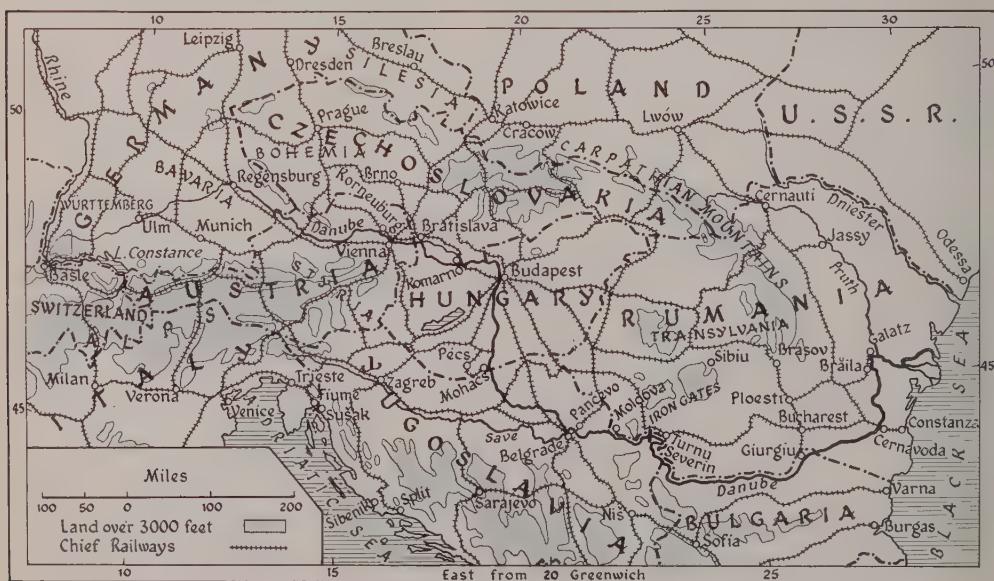
plant, in its smooth reflection beside the waving funnel of the Hungarian tug next to it, and Austrian and Rumanian bargees discuss together the common problems of their ailing wives or growing children, while the Dutch sailor nods, smoking his pipe in silence beside them. Here for a moment there is harmony between peoples, a harmony which strikes the imagination again when the ice is on the river and all the barges are collected in the great Winter harbours, of Vienna for instance or Budapest, and the smoke of dinner cooking rises simultaneously into the frosty air from a dozen barges of differing nationalities.

The Danube barge, like barges on canals and rivers the whole world over, is a little estate to itself, with flowered window-boxes, dogs and canaries and poultry, and even pigs, for the household's amusement and nourishment. The bargee here has a special problem: to what state shall his children belong? He spends nearly all his life moving through one country after another, he often loses the feeling of being the citizen of any one country and can speak several languages; nevertheless by law he must send his children to school in

one country or another. . . . And after school comes military training in one of seven different uniforms to shake the pleasant illusion of a harmonious world.

The most important companies operating on the Danube are German (the Bavarian Lloyd and the S.D.G.), Austrian (D.D.S.G.), Hungarian (M.F.T.R.), Czechoslovakian (C.S.P.D.), Yugoslav (J.R.P.), Rumanian (N.F.R. and S.R.D.), and French (S.N.D.). There are also, as already indicated, the boats of the English Company, Anglo-Danubia, whose importance is continually growing, and Dutch, Bulgarian, Belgian, Italian, and, below the Iron Gates, Greek boats in varying numbers. Certain oil-companies, such as Shell, also have a small fleet of their own.

The D.D.S.G. is still predominant, and, though it went through a severe crisis a few years ago, seems likely, now that a financial reconstruction has taken place and state aid has been granted, to be able to hold more than its own in the future, provided the present boom in Danubian traffic does not suddenly collapse. The D.D.S.G.'s fleet comprises about 16 per cent of the total shipping on the river; it





D.D.S.G.

*Many are the shipyards along the Danube's banks; the Anglo-Danubia's finest tug was built by Skoda at Komarno; here two motor-tankers are being completed for the D.D.S.G. at Korneuburg*

has first-class shipyards in Korneuburg and Budapest, owns the only respectable coal-mines in Hungary, at Pecs, and the railway connecting them with Mohacs, and employs about 8000 people. Like the other companies, the D.D.S.G. has, during the last four years, been adding powerful motor-tugs to its fleet.

#### INTERNATIONAL RIVALRY

The capital structure and inter-structure of these companies is extremely interesting, if a little obscure. Italian capital, taking over from English, has recently had a dominant interest in the D.D.S.G.; and the D.D.S.G., the Bavarian Lloyd, the M.F.T.R. and the Comos Company (which seems to be Austrian controlled though it is registered in Amsterdam), form a fairly closely connected capital-grouping that comprises about 35 per cent of the total Danubian shipping, and in which the D.D.S.G.'s share is about 45 per cent. This capital-grouping is known as the *Betriebsgemeinschaft*, and is matched by

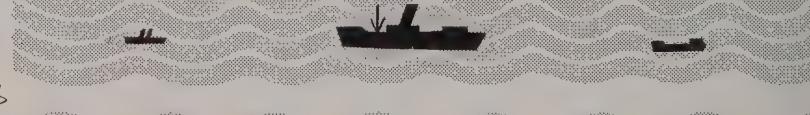
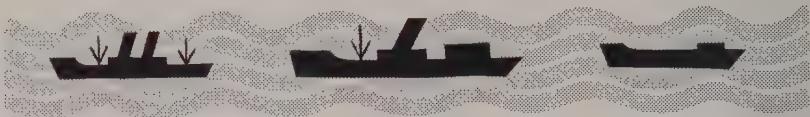
a similar financial grouping of the Little Entente companies, which has made in recent years the greatest efforts towards expansion, both in passenger- and goods-carrying traffic.

Such a picture, of invisible financial rivalry between two *political* groupings, held in temporary and partial check though it is by various cartel agreements, is the obverse of the picture of harmony and peace which Danubian traffic under the I.D.C. presents on the surface; a reminder that there are many problems still to be solved before the régime can be said to be international in the fullest sense of the word.

#### A HIGHWAY OF TRADE

What does the chief traffic on the Danube consist of? Before considering this question in detail, it is important to stress one point, a natural feature which has always worked to the economic disadvantage of the Danube: it flows out, not into the comparatively open Mediterranean or the ocean, but into a small sea with only one

# COMPARISON OF FLEETS ON THE DANUBE, 1937



TUGS (BY HORSE POWER) FREIGHTERS (BY TONNAGE) BARGES (BY TONNAGE)

# GOODS TRAFFIC ON THE DANUBE

## UPSTREAM:

MORE GOODS COME UPSTREAM  
THAN GO DOWNSTREAM



BAUXITE



CEREALS



ORES



## DOWNSTREAM:

MANUFACTURED  
GOODS



TIMBER



SALT

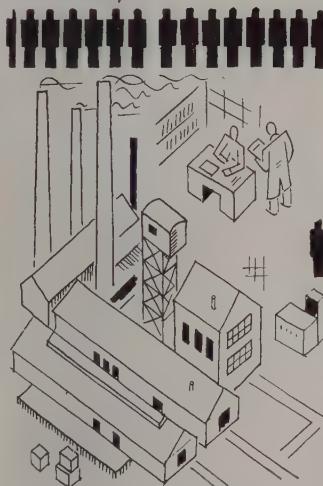


COAL



## THE DANUBIAN COUNTRIES: POPULATION AND OCCUPATION

### INDUSTRY, ETC.



GERMANY

RUMANIA

YUGOSLAVIA

CZECHOSLOVAKIA

HUNGARY

AUSTRIA

BULGARIA

### AGRICULTURE



EACH FIGURE DENOTES 3 MILLION PEOPLE

narrow outlet, away from the great shipping highways of the world. It does not need too great an exercise of the imagination to see how vastly more important and thriving Danubian trade would be if the delta were on the Atlantic seaboard. Nevertheless, as long as water-transport remains cheaper than any other kind of transport, the Danube is likely to retain its very considerable significance in trade between the riparian states themselves—and they stretch from the Black Sea to the French frontier.

At present the Danube is the main highway by which the primary products of south-eastern Europe are exchanged for the finished or semi-finished products of industrial Central Europe. An interesting proof of the indispensable services which the Danube renders is the fact that about 50 per cent of the shipping companies' income is derived from the transport of finished goods (on the American rivers it is scarcely more than 5 per cent, finished goods going mainly by train, etc.).

Cereals come upstream from Rumania, Yugoslavia and Bulgaria in long trains of barges, and are unloaded in Austrian, German and Czech ports. Oil, brought from the rich valley of Ploesti to the port of Giurgiu, 70 kilometres from Bucharest, comes up to the tank depots and refineries of Budapest, Bratislava, Vienna and other ports in the tankers of many nationalities. And downstream go, chiefly, textiles and machines and other manufactured goods from the factories of Austria, Bohemia, Silesia, and even western Germany. Cereals and oil also move downstream towards the sea, and are transferred to other ships in Braila and Galatz. Polish coal is shipped from Komarno for Hungary, though a few years ago this trade was far brisker than at present when Hungary is importing coal from Germany. There is a local traffic of timber, from Austria to Hungary, for instance, and, curiously enough, owing to cheap Czechoslovakian railway rates, from Austria to

Bratislava for north-eastern German destinations; and a smaller proportion of miscellaneous merchandise coming via the Black Sea upstream from western Europe and the Soviet Union.

One of the difficulties of the river trade has always been that far more has come up than has been sent down, so that barges have had continually to return empty. In 1936, for instance, four times as much was brought upstream as downstream. The conditions, however, of the spring and early summer of 1937 were exceptional, and this discrepancy was considerably reduced.

The value of the Danube for trade is by no means equal for all the riparian states, and is in very varying relation to the length of the river which flows through or along their frontiers. In Yugoslavia, to take one example, the rivers which are not internationalized, such as the Save, play a very important part in trade, and the major part of her timber, one of the largest items of export, is shipped from Adriatic ports. Nevertheless in Yugoslavia in 1936 the total Danube traffic, internal and transit traffic included, reached the figure of 5 million tons, which reveals an increase of more than 40 per cent over 1933.

In Rumania, on the other hand, the Danube plays a far more vital part, which is only to be expected when one remembers that the two important *maritime* ports of Braila and Galatz lie on it. Two-thirds of Rumania's imports from the industrial countries of Europe are received through these centres; and through them also her timber and cereals go out on the sea-routes, while Central Europe is provisioned with oil from the port of Giurgiu. A curious feature of Rumania's use of the river, is that timber from her Transylvanian forests on its way to Galatz is sent down tributaries into the Danube in Yugoslavia, to pass back into Rumania later on. But it seems, according to figures of recent years, that to Hungary above all the Danube is important: in 1935 40 per



John Lehmann

*Raw materials of many kinds travel along the Danube; oil in vast quantities is sent upstream from Rumania, and stored in the ports of Central Europe, as in this newly built reservoir at Bratislava while downstream go the great timber rafts from the forests of Styria and Transylvania*

John Lehmann



*From South-Eastern Europe come the barges full of grain to be unloaded in the ports of Bratislava, Regensburg, and, here, Vienna*



John Lehmann

*The workers shovelling the grain towards the sucking elevator's proboscis wear special mouth-and-nose pads to protect them against the flying chaff*



John Lehmann



John Lehmann

*From the industrial countries of Central Europe manufactured goods are sent downstream in exchange for grain and oil. Electric cables from Austria's factories being loaded into a barge at Vienna; and (below) paper from Germany being unloaded on the quayside in Belgrade*

John Lehmann



cent of the total Hungarian trade passed along its stream. The importance of the Czechoslovak sector of the river, again, is entirely out of proportion to its length, which is only 172 km.; the modernization of Bratislava and Komarno, their excellent railway connections with not only Bohemian but also Polish and German Silesian industrial regions, are in the main responsible for this.

Bratislava, always a river harbour of importance, has been re-equipped by the Czechs; while Komarno, formerly insignificant, has been converted into an efficient modern port and shipyard. All the Succession States, indeed, have exerted themselves since the war to improve traffic facilities in their respective sectors of the river. The Serbs are re-building the Belgrade harbour to give it international instead of merely local significance. Great bridges, too, have been built, notably the King Alexander Bridge at Belgrade (actually over the Save where it enters the Danube); and the Panchevo Bridge a few kilometres further downstream; while the Rumanians have reconstructed the giant bridge at Cernavoda, blown up during the war, that connects Bucharest directly with Rumania's most important Black Sea port, Constanza. These ports, however, in the new or newly enlarged countries still have a long way to make up, and meanwhile from the source as far as Braila, the ports of Vienna and Budapest—which Austria and Hungary have done much to modernize—remain supreme in space, handling and warehousing facilities.

#### FUTURE DEVELOPMENT

In considering the probable future development of traffic and trade along the Danube, it is first of all necessary to understand the difference in economic structure, before the war and at present, of the territories through which it flows. Before 1914 the empire of the Habsburgs was a remarkably self-sufficient economic

unit; but in the decade that followed the Peace Treaties the Succession States, for reasons partly economic, partly military, aimed at being as far as possible self-sufficient, industrially as well as agriculturally, and also at increasing their export surplus for the west where they were contracting large loan-debts.

This tendency was also marked in the new Austria and the new Hungary, with the result that today it would be quite impossible to re-establish the badly disturbed economic equilibrium of the whole region simply by reducing tariff duties and loosening exchange-regulations, both of which have grown so high and entangled since the world crisis of the early 'thirties. The agricultural countries of the south-east cannot hope to dispose of their surplus of cereals, oil, poultry, etc., within the old boundaries, nor can the factories of Bohemia and Austria find adequate markets in Hungary (which is already half-industrialized) or Rumania and Yugoslavia alone. Not only a harmonious relation with German and Italian markets is essential, but also greater trade and financial support from the countries of western Europe and the United States; and the latter increasingly, if Italy and Germany continue on their present autarchic course.

#### GERMANY'S ECONOMIC OFFENSIVE

Throughout the spring and summer season of 1937 the pressure of traffic was exceptionally heavy, and there was often far from enough barge- and tank-room to cope with the demand; boom conditions, in fact, ruled, and the only shadow was a temporary stoppage of oil deliveries from Rumania to Austria owing to a passing disagreement about the method of payment.

The reasons for this state of affairs were two, and throw an extremely interesting light on the whole problem of the Danubian area, a problem still in the foreground of European politics. The first reason was a considerable increase of traffic among the

Since the war great bridges have been constructed at several points along the river. The King Alexander Bridge at Belgrade—



—and the Panchevo Bridge a few kilometres below are significant of fresh energies released in the extended Kingdom of the Southern Slavs



At Cernavoda, too, the Rumanians have handsomely reconstructed the vital bridge that unites their capital by railway with the Black Sea port of Constanza





D.D.S.G.

*In the severest winters ice appears all down the Danube; but it does not often cause such havoc as in 1929, when many ships were wrecked in the solid river's crushing grip*

Danubian states themselves, stimulated by the rise in the world prices of raw materials and cereals, and by the beginning of a recognition in certain of these states that they stood to benefit in the long run by keeping their doors open as wide as possible; this is in particular true of Austria and Czechoslovakia. The other reason was, however, the gigantic economic offensive of Germany in the south-east, in which she was swallowing up as much as possible of the surplus of the Balkans, achieving a dominant, almost exclusive place in the export trade of one or two of the countries.

That Germany should turn a large buyer is no bad thing in itself; but it becomes an exceedingly dangerous business for the selling countries, when it is an abnormal movement that is only likely to last as long as Germany wishes to pile up

special, perhaps military reserves, meanwhile deflecting them from more healthy markets; all the more dangerous when Germany announces that she cannot pay and forces her own goods as 'compensation' on them. No country wants to have to restrict its purchases in this way, no country can afford, least of all along the Danube, indefinite delays in payment.

It is this which makes the Danubian countries eager to increase their trade with the free exchanges of the western democracies, a movement which must also react favourably on their own mutual trade. Finally, one should not forget, though an adequate treatment of the point lies outside the scope of these articles, that such a movement can never develop momentum until the consuming power of the masses in nearly the whole Danubian area is raised considerably beyond its present level.

# PHOTOGRAPHIC NOTES

Edited by F. S. Smythe

## 12. COLOUR PHOTOGRAPHY (5)

Colour photographs in the form of paper prints can now be made by the exceptionally skilled amateur using the Kodak Wash-Off Relief process described in these notes last month. As in all colour photography processes, the various colours of the spectrum are represented by varying amounts of the three primaries, red, green and blue, or their complementary colours. In the wash-off process, this separation of the original colours takes place during the photographing of the original object by the use of three colour filters.

In order to separate the colours in this way, three different photographs must be taken of the same object. Unless a special camera is designed to do this simultaneously, the photographs must be taken one after another. Few amateurs are likely to go to the expense of obtaining a special three-colour camera, so that colour photography on these lines is limited to making pictures of still life objects and distant landscapes where there is complete absence of movement.

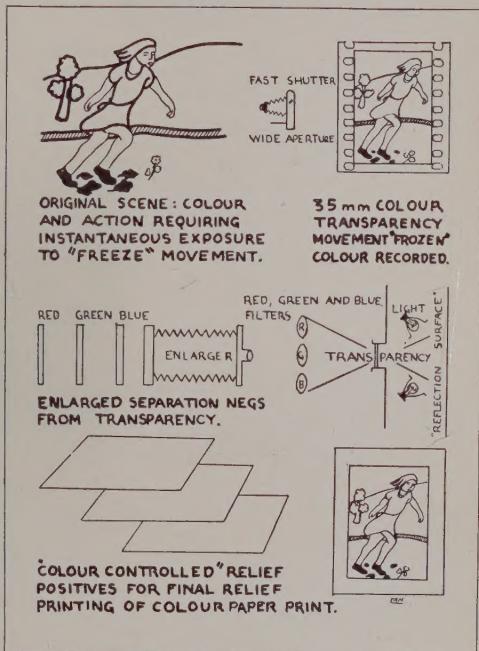
By a clever combination of the Kodachrome process and the wash-off relief process, the amateur photographer can take genuine colour snapshots no matter what amount of movement there is in the original scene.

In common with pictures made by the other two successful colour-photography-processes on the market, a Kodachrome snapshot—positive colour transparency—can only be viewed by projection. By making three 'colour separation negatives' from a Kodachrome transparency, a wash-off relief paper print can be obtained.

Kodachrome is quite as fast as ordinary black-and-white film, so that, with a normal camera, correctly exposed colour pictures can be taken at f.8 or f.11 in bright sunlight with shutters working at 1/50th or 1/100th of a second. Such shutter-speeds are quite fast enough to 'freeze' any amount of 'normal movement.' The photographer thus obtains a 'still' picture of the original scene in colour. All that he now has to do is to photograph this picture three times through the three filters, red, green and blue (F, N, C<sub>4</sub>). In this way the separation-negatives of the picture can be obtained.

Since the Kodachrome picture is usually

taken on 35mm film, a certain amount of enlargement is advisable at this stage. Fortunately, Kodachrome is completely grain-free, so that enlargement up to 6 or 7 times the original size is perfectly feasible.



*Apart from 'colour control' it is also necessary when printing the relief positives to use the specially adapted filters F, N, C<sub>4</sub> during enlargement from the original transparency*

From the three separation-negatives positive-transparencies must now be prepared. These are converted into 'reliefs' from which the final imbibition prints are made on to the paper.

A number of adjustments are, however, necessary owing to the fact that the original negatives of the relief process are really photographs of the dyes in the Kodachrome pattern, and not of all the colours in the original scene. These adjustments—'colour controlled' printing of the positive-transparencies from which the reliefs are made—will be described in these notes next month.



## CADBURY CAVALCADE

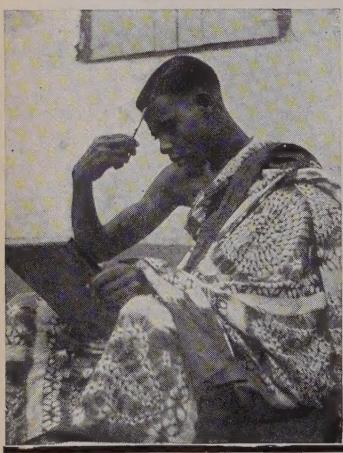
# *Work and play in COCOA LAND*

My name is Kwesi Kra. I am a Cocoa farmer. This photograph was taken last time I was in Kumasi to sell my Cocoa harvest. My wife says I look very dignified. Well, I say, why not?



Here is Acosna Yeoah. He works for me. I sent him to get the cash for my Cocoa. He is being paid in florins. Why florins? Because we like florins so much in Cocoa Land that we never let them go out of the Colony. I once buried two hundred new ones. They are still buried. I get a lot of florins. If your Cocoa is good enough for Cadburys to buy it they pay you well. But it certainly has to be good.

Before I returned to my farm at Sunyani I went to Cadbury Hall. This is the agricultural training centre of Kumasi. It is run by the Government, and was built by Cadbury Bros. That's where our young men learn the new ways of farming. Presently I want my boys to get the advantages of these new methods. And I would like to know more about them myself.



In the evening my sons like to make themselves smart. In the picture Yaw is parting his hair. You see he does not use a brush and comb, but ploughs a parting with a pair of scissors. Washed and in his best wrap of Lancashire cloth, he is going out this evening with some of his pals.

Here he is, the rascal, playing Warri-Warri. This is a game something like dominoes, played on a board with six cup-holes and a handful of small balls. If you went out of our compound you would find half the men and boys of the village at the little stream, all white with soapsuds. Evening is the great tubbing time.



★  
This is our village blacksmith. The tree was not a chestnut, and has been cut down anyway. But you will admit 'the muscles of his brawny arms stand out like iron bands'! He uses a charcoal fire, and his little son works the bellows for him.

